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A CLASSIFICATION OF FISHES

Including Families and Genera
as Far as Known

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INTRODUCTORY NOTE

The present paper is a continuation and conclusion to a series of four memoirs issued from 1917 to 1920 under the title of "The Genera of Fishes." In it I have tried to place each genus and subgenus, living and fossil, thus far named or described, whether valid or not, in its proper family and to arrange the families themselves in as natural a sequence as is possible with a linear series which embraces highly divergent lines of evolution. I make no effort to distinguish between valid names, preoccupied names, and synonyms. The multitude of new forms recorded in the last fifty years precludes any such attempt. It will be observed that the number of families I have recognized is, in several groups, greater than accepted by any previous writer. This is due to the fact that analysis must precede synthesis, and it is better to lay a certain stress on aberrant forms than to include them uncritically in expanded groups, the definition of which is impaired or denied by their presence. Investigators who prefer to be more "conservative" can treat these groups as seems best.

In each family I have arranged the genera in the order of time. In most large groups our knowledge is too imperfect to make a detailed natural classification practicable in a compilation like this. In the list, moreover, are many nominal genera, especially among the fossils, in which an arrangement even by families is largely guesswork. As to sequence of orders and families, there is room for wide apparent divergence of opinion. Following recent custom I place the simplest or most ancient forms first, closing with highly specialized types of recent date.

The names of fossil genera are throughout printed in SMALL CAPITALS; those of doubtful eligibility—either because not binomial or else given without type, definition, or explanation—are in *Italics*. In my personal judgment these stillborn names should not enter the system unless later revived in regular form. Names attached to known species (typonyms) I have, however, admitted without question, and I make, of course, no distinction here between genera and subgenera. In each case I add the date of the genus with the page in "The Genera of Fishes," in which it is more fully treated.

In preparing this paper I have been under special obligation to Allan R. McCulloch of the Australian Museum; to my former student, Carl L. Hubbs of the University of Michigan; and to Theodore D. A. Cockerell of the University of Colorado. Each of these has brought errors or omissions to my attention, and Mr. Hubbs has suggested good reasons for certain important changes in sequence.

I may again emphasize the distinction between the ancient and modern periods in animal taxonomy. Beginning with 1758, the date of Linnæus' "Systema Naturæ," for sixty years a genus was usually regarded merely as a convenient pigeon-hole into which species are thrown. With Cuvier's "Règne Animal" (1817) came the conception of arrangement "according to organization" or comparative anatomy. With Darwin's "Origin of Species," forty years later (1859), zoologists began, though slowly at first, to realize that a classification must be more than an inventory; that its basis must be genetic, and the problems involved in a natural grouping are vastly more complex than even great morphologists like Cuvier and Agassiz had realized. To paraphrase a saying of Elliott Coues, genera and species are but larger and smaller twigs of a tree which we try to arrange as nearly as possible in accordance with nature's ramifications. This view applied to taxonomy involves the extensive subdivision of accepted genera, many of which were unnatural in the highest degree, a subdivision in many cases doubtless going too far, but our material must be first analyzed before we can group its parts in natural synthesis. No system of naming can progress beyond the knowledge on which it rests.

I may repeat a warning as old as science itself: that we must not expect a degree of accuracy which the subject in question does not permit.

DAVID STARR JORDAN.

STANFORD UNIVERSITY,
JANUARY 15, 1923

A CLASSIFICATION OF FISHES

Including Families and Genera as Far as Known

Class LEPTOCARDII

(*Myelozoa*)

Order AMPHIOXI

(*Cirrostromi*)

The Lancelets (or *Leptocardii*) are without doubt simplest in organization of all fish-like chordates or vertebrates.

Apparently their lowly structure is primitive but the geological history of the group is unknown and likely to remain so, as these creatures possess no hard parts. Whether the lampreys on the one hand or the lower and not fish-like acranite *Chordata* (*Tunicates* and *Enteropneustans*) are derived from *Leptocardians* can not be known.

Family 1. AMPHIOXIDIDÆ

*Amphioxides*¹ Gill, 1895, 467.

¹ This genus of three species, based on the absence of buccal cirri, the unsymmetrical mouth, and some other anatomical details, is now regarded as probably a larval form of *Asymmetron* rather than as a distinct genus.

Family 2. BRANCHIOSTOMIDÆ (*Amphioxidae*)

(Lancelets)

Branchiostoma Costa, 1834, 180.

*Dolichorhynchus*² Willey, 1901, 495.

Amphioxus Yarrell, 1836, 186.

² Misprinted *Dolichorhamphus* by Hubbs, *Occ. Papers, Univ. Mich.*, 105, p. 13, 1922.

Family 3. EPIGONICHTHYIDÆ

Epigonichthys Peters, 1877, 391.

*Paramphioxus*⁴ Haeckel, 1893, 461.

*Asymmetron*³ Andrews, 1893.

*Heteropleuron*⁴ Kirkaldy, 1895, 469.

³ Studies Johns Hopkins Lab. V, 237; orthotype *Asymmetron lucayanum* Andrews (overlooked in "Genera of Fishes").

⁴ *Paramphioxus* and *Heteropleuron* are synonyms of *Epigonichthys*.

Class MARSIPOBRANCHII

(*Myzontes; Cyclostomi; Dermopteri*)

The Lampreys and Hag-fishes stand next the Lancelets at the foot of the series. They have no hard parts, teeth excepted, and these have never been found fossil.

The name of CONODONTES has been given to a variety of tooth-like structures found in Devonian rocks in Russia and about Lake Erie. But the chemical composition of these differs from that of lamprey-teeth, and it is more likely that they are appendages of Crustaceans or teeth of snails (or worms) rather than of fishes. Most of the generic names given by Pander in 1856, enumerated on page 409 of the "Genera of Fishes," belong to the Palæozoic group of *Conodontes*; Pander thus classified the Conodonts: (a) Simple structures, slender and sharp, DREPANODUS, ACODUS, DISTACODUS, MACHAIRODUS, PALTODUS, SCOLOPODUS, OISTODUS, ACONTIODUS. (b) Complex structures, with several cusps. PRIONIODUS, BELODUS, LONCHODUS, CTENOGNATHUS, CORDYLODUS, GNATHODUS, PRIONOGNATHUS, POLYGNATHUS, CENTRODUS (not of Giebel).

Nothing is known of the geological history of Lampreys, nor can any one say whether Sharks or Ostracophores were in the line of descent from them. The two orders of this class diverge widely from each other, and perhaps, as Lankester has contended, each should be regarded as a distinct class.

Order HYPEROTRETA

Family 4. MYXINIDÆ

(Hag-fishes)

Myxine Linnæus, 1758, 406.

Murænoblenna Lacépède, 1803, 68.

Gastrobranchus Bloch, 1797, 53.

Anopsus Rafinesque, 1815, 92.

Family 5. EPTATRETIDÆ

Eptatretus^a (Duméril) Cloquet, 1819, 106.

Heptatrema Duméril, 1856, 268.

Homea^a Fleming, 1822.

Polistotrema Gill, 1881, 416.

Bdellostoma Müller, 1835, 182.

Paramyxine Dean, 1904, 506.

Hexabanchus Schultz, 1835, 184.

^a This name is often corrected to *Heptatretus*.

^a Philos. Zool. II, 374; type *H. banksi* Fleming; omitted in "Genera of Fishes").

Order HYPEROARTIA

Family 6. PETROMYZONIDÆ

(Lampreys)

- Petromyzon** Linnæus, 1758, 11.
Ammocætus[†] Duméril, 1808, 76.
Lampreda Rafinesque, 1815, 93.
Pricus Rafinesque, 1815, 93.
Lampetra Gray, 1851, 249.
Ichthyomyzon Girard, 1859, 291.
Scolecossoma Girard, 1859, 291.
Entosphenus Gill, 1862, 317.
Bathymyzon Gill, 1883, 424.
Caspiomyzon Berg, 1906, 516.
Agnathomyzon Gracianov, 1906, 518.
Haploglossa Gracianov, 1906, 518.
Oceanomyzon Fowler, 1908, 528.
Eudontomyzon Regan, 1911, 540.
Reighardina^{†a} Creaser (Charles W.)
 and Hubbs, 1922.
Tetrapleurodon^{†b} C. & H., 1922.
Lethenteron^{†c} C. & H., 1922.
Okkelbergia^{†d} C. & H., 1922.

[†] Usually written *Ammocætes*.^{†a} "A Revision of the Holarctic Lampreys," *Occ. Pap. Mus. Zool. Michigan*, 120: 2; orthotype *Ichthyomyzon fossor* Reighard & Cummins = *Petromyzon unicolor* Dekay.^{†b} *Loc. cit.*, 3; orthotype *Lampetra spadicea* Bean.^{†c} *Loc. cit.*, orthotype *Lampetra wilderi* Gage = *Petromyzon appendix* De Kay.^{†d} *Loc. cit.*, 8; orthotype *Petromyzon lamotteni* Le Sueur = *Ammocætes æpyptera* Abbott.Family 7. GEOTRIIDÆ^s

(Mordaciidæ)

- Geotria** Gray, 1851, 249.
Caragola Gray, 1851, 249.
Velasia Gray, 1851, 249.
Mordacia Gray, 1851, 249.
Thysanochilus Philippi, 1857, 276.
Chilopterus Philippi, 1858, 283.
Exomegas Burmeister, 1868, 348.
Yarra Castelnau, 1872, 363.
Neomordacia Castelnau, 1872, 363.
Macrophthalmia Plate, 1897, 478.

^s The name *Mordacia* may not be tenable, as its synonym *Caragola* has line priority.

Class OSTRACOPHORI

(*Aspidoganoidei*; *Ostracodermi*, name preoccupied; *Protocephali*)

In regarding the ostracophores as a distinct class I do not pretend to settle any of the vexing questions as to the origin and relations of the group. It may be that the four orders do not belong together, that the *Antiarcha* are sharks or else *Arthrodires*, that the group itself is a mailed variant of the Lampreys, that it is ancestral to the sharks, that it is derived from primitive sharks or that it is a variant of primitive crustaceans. In the latter case the ancestry of fishes and through them of other vertebrates, should be sought not in worm-like forms, but in marine creatures with hard shells, related to *Limulus* and remotely to existing spiders. In general, however, the outer parts are more often modified by natural selection than internal structures, hence of less value in determining relations. The outside of an animal tells where it has been, the inside what it really is.

In Hæckel's words, there are three ancestral documents in the study of evolution, morphology, embryology, and palæontology. From the first two no decisive answer is given to the question of the origin of the ostracophores. Paleontology shows that several of the great divisions of fishes had appeared in the Devonian. The oldest known fragment of a fish (*Astraspis*) is from the Ordovician in the Trenton horizon at Cañon City, Colorado. With this, however, are other fragments doubtfully referred to a chimæra (*Dictyorhabdus*) and a crossopterygian (*Eriptychius*). If these are correctly identified the differentiation of fishes had proceeded far when the Palæozoic era began.

Most naturalists have traced the hypothetic ancestry of vertebrates through lancelets or enteropneustans back to soft-bodied, worm-like forms which have left no traces in the rocks. Dr. Patten, however, regards *Pteraspis* as descended from primitive arachnids with bony carapace. From *Pteraspis* he derives the other ostracophores, and from these the sharks and other vertebrates appearing progressively later in time. This ingenious theory is developed in the *American Naturalist*, 1904. Patten regards the lateral fold in some sharks as the result of a fusion of the fringing appendages on the sides of the body. This is evident in his restoration of *Cephalaspis*.

Order HETEROSTRACI

(*Aspidorhini*)

Family 8. THELODONTIDÆ (*Cælolepidæ*)

Thelodus is identical with *Cælolepis* and should give the name to this family.

THELODUS Agassiz, 1839, 194.	DASYLEPIS, Pander, 1856, 273.
CÆLOLEPIS Pander, 1856, 273.	DICTYOLEPIS Pander, 1856, 273.
NOSTOLEPIS Pander, 1856, 274.	ONISCOLEPIS Pander, 1856, 273.
PACHYLEPIS Pander, 1856, 274.	MELITTOMALEPIS Pander, 1856, 273.
THELOLEPIS Pander, 1856, 274.	PRIONACANTHUS Pander, 1856, 273.
GOPHODUS Pander, 1856, 274.	SPIRODUS Kade, 1858, 281.
SCHEDIOSTEUS Pander, 1856, 273.	LANARKIA Traquair, 1899, 488.

Family 9. PSAMMOSTEIDÆ

<i>Psammolepis</i> Agassiz, (1844) 1845, 217.	ACANTHOLEPIS Newberry, 1875, 379.
<i>Placosteus</i> Agassiz, (1844) 1845, 217.	GANOSTEUS Rohon, 1902, 500.
PSAMMOSTEUS Agassiz, 1845, 225.	PYCNOSTEUS Preobrazhenskii, 1910, 537.
LOPHOSTEUS Pander, 1856, 274.	DYPTYCHOSTEUS Preobrazhenskii, 1910, 537.
ACANTHASPIS Newberry, 1875, 379.	

Family 10. ASTRASPIDÆ

ASTRASPID¹⁰ Walcott, 1892, 459.

¹⁰ See Eastman, *Proc. U. S. Nat. Mus.*, 52: 237, 1917.

Family 11. DREPANASPIDÆ

DREPANASPIS Schlüter, 1887, 439.

Family 12. CERASPIDÆ

CERASPIS Schlüter, 1887, 439.

Family 13. PTERASPIDÆ

SPHAGODUS ¹¹ Agassiz, 1839, 194.	CYATHASPIS ¹³ Lankester, 1865.
CHIASTOLEPIS ¹² Eichwald, 1844, 220.	KALLOSTRAGON Lankester, 1870, 358.
PTERASPIS Kner, 1847, 232.	HOLASPIS ¹⁴ Lankester, 1873, 370.
ARCHÆOTEUTHIS Roemer, 1855, 264.	PALÆASPIS Claypole, 1884, 427, 430.
PALÆOTEUTHIS Roemer, 1855, 266.	DIPLASPIS Matthew, 1887, 438.
TOLYPELEPIS Pander, 1856, 273.	TOLYPASPIS Schmidt, 1893, 462.
SCAPHASPIS Lankester, 1865, 338.	PHOLIDOSTEUS Jaekel, 1907, 524.

¹¹ A very doubtful genus, the type said to be part of the mouth of an Eurypterid Crustacean, as is also a tooth called AULACODUS.

¹² A very doubtful fragment of armor.

¹³ *Rep. Brit. Assoc. for 1864*, p. 58. Omitted in "Genera of Fishes": type *Pteraspis banksi* Huxley & Salter.

¹⁴ Preoccupied by *Holaspis* Gray, 1863, a reptile.

Order OSTEOSTRACI

Family 14. CEPHALASPIDÆ

CEPHALASPIS Agassiz, 1835, 181.

EUCEPHALASPIS Lankester, 1870, 358.

ZENASPIS Lankester, 1850, 246.

HEMICYLASPIS Lankester, 1870, 358.

STEGANODICTYUM M'Coy, 1851, 249.

Family 15. ATELEASPIDÆ

ATELEASPIS Traquair, 1899, 488.

Family 16. THYESTIDÆ (*Menaspidæ*)

SCLERODUS Agassiz, 1839, 194.

AUCHENASPIS Egerton, 1857, 275.

PLECTRODUS Agassiz, 1839, 194.

DIDYMASPIS Lankester, 1867, 346.

MENASPIS Ewald 1848, 233.

EUKERASPIS Lankester, 1870, 358.

THYESTES Eichwald, 1854, 256.

CEPHALOPTERUS Powrie, 1870, 359.

Family 17. ODONTODONTIDÆ (*Tremataspidæ*)The name *Odontotodus* has priority over *Tremataspis*.

STIGMOLEPIS Pander, 1856, 273.

STROSISPHERUS^{14a} Pander, 1856, 274.

ODONTOTODUS Pander, 1856, 274.

TREMATASPIS¹⁵ Schmidt, 1866, 343.COSCINODUS^{14a} Pander, 1856.ANCISTRODUS^{14a} Rohon, 1893, 462.MONOPLEUROIDUS^{14a} Pander, 1856, 273.^{14a} The relationship of these forms is apparently quite unknown.¹⁵ The genus *Mycterops* Cope (1886) should be erased. According to Woodward it is based on a shield of an Eurypterid Crustacean.

Family 18. EUPHANEROPIDÆ

EUPHANEROPS Woodward, 1900, 491.

Order ANTIARCHA

(*Placodermi* part; *Placoganoidei*; *Azygostei* part)

It is not yet certain that this order should be retained among the ostracophores. Hay and others place it with the arthrodires in a subclass *Azygostei* or a superorder *Placodermi*.

Family 19. ASTROLEPIDÆ (*Bothrolepidæ*; *Pterichthyidæ*)

PLEIOPTERUS Agassiz, 1835, 181.

ODONTACANTHUS Agassiz, 1845, 225.

ASTROLEPIS¹⁶ Eichwald, 1840, 206.

NARCODES Agassiz, 1845, 225.

BOTHRIOLEPIS Eichwald, 1840, 206.

ACTINOLEPIS Agassiz, 1845, 225.

PTERICHTHYS Hugh Miller, 1841, 209.

PTERICHTHYODES Bleeker, 1859, 289.

PLACOTHORAX Agassiz, 1844, 218.

MICROBRACHIUM Traquair, 1888, 443.

PAMPHRACTUS Agassiz, 1844, 218.

Glyptosteus Agassiz, (1844) 1891, 217.

HOMOTHORAX Agassiz, 1845, 225.

MILLERICHTHYS S. A. Miller, 1892, 458.

¹⁶ Usually written *Asterolepis*.

Order ANASPIDA**Family 20. LASANIIDÆ**

LASANIUS Traquair, 1899, 488.

Family 21. BIRKENIIDÆ

BIRKENIA Traquair, 1899, 488.

CTENOPLEURON Matthew, 1907, 525.

Order CYCLIAE**Family 22. PALÆOSPONDYLIDÆ**

I here give the rank of a separate order to the singular little fish-like organism of the Scottish Devonian age known as *Palæospondylus gunni*. In doing so, I do not assume to decide what its relationships may be, whether a minute but specialized primitive lamprey, an offshoot from the arthrodires or the ostracophores or whatever else may be possible. Perhaps, as suggested by Huxley, it may be a "baby *Coccosteus*."

PALÆOSPONDYLUS Traquair, 1890, 453.

Class ARTHRODIRA

Order STEGOPHTHALAMI

Family 23. MACROPETALICHTHYIDÆ

MACROPETALICHTHYS Norwood and Owen, 1846, 229.

Family 24. ASTEROSTEIDÆ

ASTEROSTEUS Newberry, 1875, 379.

Order TEMNOTHORACI

Family 25. CHELONICHTHYIDÆ

ICHTHYOSAUIROIDES Kutorga, 1837, 189.

HETEROSTEUS Asmuss, 1856, 267.

HOMOSTEUS¹⁷ Asmuss, 1856, 267.

CHELONICHTHYS^{18a} Agassiz, (1842) 1891, 217.

^{18a} Agassiz quotes this name from "Murchison's Report, 1842.

¹⁷ Name misprinted *Homostius*.

Order ARTHROTHORACI

Family 26. COCCOSTEIDÆ

COCCOSTEUS Agassiz, 1844, 218.

CHELYOPHORUS Agassiz, 1845, 225.

SIPHONODUS, Fischer von Waldheim, 1852, 250.

PHYSICHTHYS Meyer, 1855, 266.

AGASSICHTHYS Newberry, 1857, 276.

ASPIDOPHORUS Newberry, 1870, 359.

ASPIDICHTHYS Newberry, 1873, 371.

LIOGNATHUS Newberry, 1873, 371.

BRACHYDIRUS¹⁸ Koenen, 1880, 404.

ANOMALICHTHYS Koenen, 1883, 424.

LOPHOSTRACON Lankester, 1884, 429.

TITANICHTHYS¹⁹ Dames, 1887, 437.

GIGANTICHTHYS Dames, 1888, 440.

GLYPTASPIS Newberry, 1889, 447.

TRACHOSTEUS Newberry, 1889, 447.

PHLYCTÆNIUS Traquair, 1890, 452.

PHLYCTÆNASPIS Traquair, 1890, 453.

ASTEROPLAX Woodward, 1891, 456.

PONERICHTHYS Miller, 1892, 458.

LISPOGNATHUS Miller, 1892, 458.

¹⁸ The name *Leptodus* was based on a Brachiopod shell and should be erased.

¹⁹ According to Regan, as quoted by Cockerell, *Gigantichtys* (*Titanichthys* Dames, not Newberry) is based on a Reptilian tooth.

Family 27. DINICHTHYIDÆ

DINICHTHYS²⁰ Newberry, 1868, 371.

GORGONICHTHYS Claypole, 1892, 457.

BRONTICHTHYS Claypole, 1894, 464.

PLATYASPIS Koenen, 1895, 469.

STENOGNATHUS Newberry, 1898, 479, 483.

PHLYCTÆNIUM Zittel, 1900, 491.

PACHYOSTEUS Jaekel, 1903, 503.

BRACHYGNATHUS Hussakof, 1909, 533.

HUSSAKOFIA Cossman, 1910, 535.

COPANOGNATHUS Hussakof and Bryant, 1919, 566.

MACHÆROGNATHUS Hussakof and Bryant, 1919, 566.

PERISSOGNATHUS Hussakof and Bryant, 1919, 566.

²⁰ *Proc. Amer. Asso. Adv. Sci. for 1867*, 17: 148 (1868).

Family 28. **TITANICHTHYIDÆ**

- TITANICHTHYS Newberry, 1885, 433. PROTITANICHTHYS Eastman, 1907, 521.
HOLOPETALICHTHYS Koenen, 1895, 469.

Family 29. **MYLOSTOMIDÆ**

- TYPODUS²¹ Meyer, 1847, 232. DINOMYLOSTOMA Eastman, 1906, 517.
MYLOSTOMA Newberry, 1883, 425. DINOGNATHUS Hussakof, 1909, 533.

²¹ Misprinted *Tylodus* in "Genera of Fishes," p. 232.

Family 30. **SELENOSTEIDÆ**

- DIPLOGNATHUS Newberry, 1878, 397. STENOSTEUS Dean, 1901, 492.
SELENOSTEUS Dean, 1901, 492.

Family 31. **PHYLLOLEPIDÆ**

- PHYLLOLEPIS Agassiz, 1844, 219. PENTAGONOLEPIS Lohest, 1890, 452.
HOLONEMA Newberry, 1889, 447.

Class ELASMOBRANCHII

(*Selachii*; *Plagiostomata*; *Chondropterygii*; *Antacea*)

Subclass SELACHII

(Sharks)

Whatever may have been the origin of sharks, whether from lamprey-like or other soft bodied forms, or through degeneration from more specialized types, I have little doubt that the most primitive form is the order *Pleuropterygii*. It seems to me, as to Dr. Dean, that the pectoral fin of *Cladoselache*, apparently derived or derivable from a lateral fold, comes nearest the primitive condition. It is conceivable that the robust pectoral spine of *Acanthoëssus* is homologous with the fin of *Cladoselache*, the anterior fin-rays being gathered together to be united in a thick spine.

If, however, we regard the pectoral limb as developed from gill-structures, the conception of origin would be changed. The jointed limb of *Orthacanthus* would be the nearest approach to the primitive pectoral limb, and from the ancestors or allies of the *Ichthyotomi* all other sharks and through them all the higher fishes as well as the higher vertebrates would be descended. Whether the pectoral limb or archipterygium of the *Crossopterygii* or the *Dipneusti* is homologous with that of the *Ichthyotomi*, or separately derived is not yet known.

The weight of authority, at present, favors the theory that the paired fins are derived from a fold of skin, and that of the known forms *Cladoselache* of the Devonian is the most primitive. We therefore adopt a sequence in accord with this theory, recognizing at the same time that weight of authority is unimportant when decisive evidence is wanting.

Leaving aside certain ichthyodorulites or detached fin-spines with other fragments of uncertain character the earliest known sharks (*Acanthoëssidæ*) appear in the lower Devonian, while *Orthacanthus* and certain *Heterodontids* occur in the Carboniferous. In the Triassic all the early forms of sharks, *Orodontidæ* excepted, disappear, and all or nearly all the living forms are descended from this Heterodontid type. To this statement the *Notidani* with *Chlamydoselachus* may form an exception, for their peculiar traits seem to be primitive, though no specimens are found before the Jurassic.

The chimæras represent a very early divergence from the sharks, being apparently nearly as old geologically as the sharks. If *Dictyorhabdus* from the Ordovician is really a chimæra, which Dr. Dean doubts, these fishes are older than any known sharks.

Order PLEUROPTERYGII

(Cladoselachea)

Family 32. CLADOSELACHIDÆ

CLADOSELACHE²² Dean, 1894.

²² "Contributions to the Morphology of *Cladoselache*," *Journ. Morphol.*, 9: 87; type *Cladodus fylleri* Newberry. (Omitted in "Genera of Fishes.")

Order ACANTHODEI

This order does not differ widely from the *Pleuropterygii*. If we assume that its fin spines are simply massed rays, as Dr. Dean asserts, the essential structure of the two groups is identical.

Family 33. ACANTHOËSSIDÆ (*Acanthodidæ*)

The name *Acanthoëssus* has priority over *Acanthodes*. Those genera marked *Ich* are known only from *Ichthyodorulites*, fin spines of more or less uncertain relations.

ACANTHOËSSUS Agassiz, 1832, 141.

MACHÆRIUS Rouault, 1858, 284, *Ich*.

ACANTHODES Agassiz, 1833, 145, 177.

ACANTHODOPSIS Hancock and Atthey, 1868, 352.

CHEIRACANTHUS Agassiz, 1835, 181.

HAPLACANTHUS Agassiz, 1845, 225.

RHADINACANTHUS Traquair, 1888, 443.

HOMACANTHUS Agassiz, 1845, 225, *Ich*.

MESACANTHUS Traquair, 1888, 443.

BYSSACANTHUS Agassiz, 1845, 225, *Ich*.HETERACANTHUS²³ Newberry, 1889, 447 *Ich*.

HOLACANTHODES Beyrich, 1848, 233.

TRAQUAIRIA Fritsch, 1893, 460.

PELONECTES Gistel, 1848, 234.

PROTACANTHUS Fritsch, 1893, 460.

MACHÆRACANTHUS Newberry, 1857, 276

Ich.

²³ *Ganiodus* Newberry should be erased. It is a misprint for *Goniodus* Agassiz, 1836.

Family 34. ISCHNACANTHIDÆ (*Ictinocephalidæ*)ISCHNACANTHUS²⁴ Powrie, 1864.*Ictinocephalus* Page, (1859) 1864, 334.

²⁴ *Quart. Journ. Geol.*, 419, 1864; type *Diplacanthus gracilis* Egerton. (Omitted in "Genera of Fishes.")

Family 35. DIPLACANTHIDÆ

DIPLACANTHUS Agassiz, 1842, 210, 225.

BRACHYACANTHUS Egerton, 1860, 295.

PAREXUS Agassiz, 1845, 225.

EUTHACANTHUS Powrie, 1864, 334.

CLIMATIUS Agassiz, 1845, 225.

MARSDENIUS Wellburn, 1902, 501.

Order ICHTHYOTOMI

Family 36. XENACANTHIDÆ (*Pleuracanthidæ*; *Orthacanthidæ*)

The name *Pleuracanthus* is preoccupied (*Coleoptera* Gray, 1832), as is also *Diplodus* Agassiz. The name next oldest, *Orthacanthus*, seems to

belong to a different genus, while *Xenacanthus* appears to be an exact synonym of *Pleuracanthus*.

PLEURACANTHUS Agassiz, 1837, 186.	PTERNODUS Owen, 1867, 347.
DIPLODUS Agassiz, 1843, 213.	THRINACODUS St. John and Worthen, 1875, 380.
ORTHACANTHUS Agassiz, 1843, 213.	PHRICACANTHUS Davis, 1879, 399.
ACANTHOPLEURUS Agassiz, 1844, 217.	LOPHACANTHUS Stock, 1880, 406.
XENACANTHUS Beyrich, 1848, 233.	ANODONTACANTHUS Davis, 1881, 415.
TRIODUS Jordan, 1849, 243.	DIDYMODUS Cope, 1883, 422.
COMPSACANTHUS Newberry, 1856, 273.	DIACRANODUS ²⁵ Garman, 1885, 432.
DITTODUS Owen, 1867, 346.	DOLIODUS Traquair, 1892, 459.
OCHLODUS Owen, 1867, 347.	
AGANODUS Owen, 1867, 347.	

²⁵ Misprinted *Dicranodus* in "Genera of Fishes."

Family 37. CLADODONTIDÆ

CLADODUS Agassiz, 1843, 213.	HYBOCLADODUS ²⁶ St. John and Worthen, 1875, 380.
CHILODUS Giebel, 1847, 231.	PTERNODUS Garman, 1885, 432.
PHCEBODUS St. John and Worthen, 1875, 380.	DICENTRODUS Traquair, 1888, 443.
LAMBODUS St. John and Worthen, 1875, 380.	STYPTOBASIS Cope, 1891, 454.
BATHYCHEILODUS St. John and Worthen, 1875, 380.	PROTODUS Woodward, 1892, 459.
	MONOCLADODUS Claypole, 1893, 460.
	SYMMORIUM Cope, 1893, 460.

²⁶ The insertion of *Hybocladodus* Hay, 1899, in the "Genera of Fishes" is an error.

Family 38. CHONDRENCHELYIDÆ

CHONDRENCHELYS Traquair, 1888, 443.

Family 39. GYRACANTHIDÆ

GYRACANTHUS Agassiz, 1837, 186.	MITRODUS Owen, 1867, 347.
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Order POLYSPONDYLI

We may here insert the hypothetical order *Polyspondyli*, regarded by Hasse as a primitive type known from fin-spines or Ichthyodorulites only, and these all of uncertain relationship, some of them perhaps *Heterodontid*.

Onchus occurs in the upper Silurian.

Family 40. ONCHIDÆ

ONCHUS Agassiz, 1837, 186.	LEPTOCHELES M'Coy, 1853, 408.
NAULAS Agassiz, 1845, 225.	ARCHÆACANTHUS Kade, 1858, 281.

Order CESTRACIONTES

Suborder JANASSIDES

I here arrange provisionally certain families of sharks, some or all with flattened bodies like the rays, but occurring in Palæozoic time they are probably not genetically connected with the flattened skates and rays of

recent times. Except the genus *Janassa*, the species are mostly known from teeth only, these mostly large and fitted for grinding.

Family 41. **JANASSIDÆ** (*Petalodontidæ*)

- JANASSA Münster, 1832, 176.
 CTENOPTYCHIUS Agassiz, 1838, 190.
 PETALODUS²⁷ Owen, 1840, 207.
 DICTEA Münster, 1840, 207.
 BYZENOS Münster, 1843, 216.
 CARCHAROPSIS (Agassiz) Davis, (1843) 1883, 214, 432.
 CLIMAXODUS M'Coy, 1848, 239.
 GLOSSODUS M'Coy, 1848, 239.
 POLYRHIZODUS M'Coy, 1848, 239.
 PLATACANTHUS²⁸ M'Coy, 1848, 408.
 DICRENODUS Romanovskii, 1853, 254.
 PRISTICLADODUS M'Coy, 1855, 266.
 SICARIUS Leidy, 1856, 272.
 XYSTRACANTHUS Leidy, 1859, 292.
 CTENOPETALUS (Agassiz) Morris & Roberts (1862) 1881, 320.
 HARPACODUS (Agassiz) M. & R., (1862) 1881, 320, 415.
 PETALORHYNCHUS (Agassiz) M. & R., (1862) 1881, 320.
 DACTYLODUS Newberry and Worthen, 1866, 342.
 ANTLIODUS N. & W., 1866, 349.
 AGELEODUS Owen, 1867, 347.
 CYMATODUS N. & W., 1870, 359.
 PELTODUS N. & W., 1870, 359.
 PETALODOPSIS Barkas, 1874, 372.
 LISGODUS St. John & Worthen, 1875, 380.
 TANAODUS St. J. & W., 1875, 380.
 HARPACODUS (Agassiz) St. J. & W., 1875, 380.
 CHOLODUS St. J. & W., 1875, 380.
 CALOPODUS St. J. & W., 1875, 380.
 FISSODUS St. J. & W., 1875, 380.
 BATACANTHUS St. J. & W., 1875, 381, 425.
 ANTACANTHUS²⁹ Devalque, 1877.
 STRIGILINA Cope, 1877, 388.
 SERRATODUS Koninck, 1878, 396.
 STICHÆACANTHUS Koninck, 1878, 396.
 CYMATODUS Trautschold, 1879, 401.
 GLYPHANODUS Davis, 1883, 422.
 PHODERACANTHUS Davis, 1883, 423.
 PETALODOPSIS Davis, 1883, 423.
 PNIGEACANTHUS St. John & Worthen, 1883, 425.
 THORACODUS Cope, 1883, 422.
 GOMPHACANTHUS Davis, 1884, 427.
 AGANACANTHUS Traquair, 1884, 430.
 CALLOPRISTODUS Traquair, 1888, 443.
 MESOLOPHODUS Woodward, 1889, 449.
 STETHACANTHUS Newberry, 1889, 447.
 GAMPHACANTHUS Miller, 1892, 458.
 PARACYMATODUS Bogoliubov, 1914, 552.

²⁷ Perhaps a synonym of *Ctenoptychius*.

²⁸ Later amended to *Platyacanthus*.

²⁹ *Ann. Soc. Geol. Belge*, 5: 60; type *A. insignis* Devalque (omitted in "Genera of Fishes").

Family 42. **PSAMMODONTIDÆ**

- PSAMMODUS³⁰ Agassiz, 1838.
 APODOMETES Gistel, 1848, 237.
 PALÆOBATES Meyer, 1849, 243.
 CHARACODUS (Agassiz) Morris & Roberts, 1862, 320, 423.
 MYLAX (Agassiz) M. & R., 1862, 320.
 PLEUROGOMPHUS (Agassiz) M. & R., (1862) 1883, 320.
 MESOGOMPHUS (Agassiz) M. & R., (1862) 1883, 320.
 LOBODUS (Agassiz) M. & R., (1862) 1883, 320.
 COPODUS (Agassiz) M. & R., (1862), 1883, 320, 422.
 SOLENODUS, Trautschold, 1874, 377.
 ARCHÆOBATIS Newberry, 1878, 397.
 DIMYLEUS (Agassiz) Davis, 1883, 423.
 MYLACODUS Davis, 1883, 423.
 PINACODUS (Agassiz), Davis, 1883, 423.
 HOMALODUS Davis, 1883, 423.
 RHYMODUS (Agassiz) Davis, 1883, 423.
 ASTRABODUS Davis, 1884, 427.
 MAZODUS Newberry, 1889, 447.
 LAGARODUS Jaekel, 1898, 480.

³⁰ *Poissons Fossiles*, 3: 110; type *P. rugosus* Agassiz (omitted in "Genera of Fishes").

Family 43. PERIPRISTIDÆ (*Pristodontidæ*)

The name *Peripristis* is earlier than *Pristodus* and belongs to the same genus.

PERIPRISTIS³¹ St. John, 1870, 359.

DIODONTOPSODUS Davis, 1881, 415.

HOPLODUS³² Etheridge, 1881.

PRISTODUS (Agassiz) Davis, 1883, 424.

³¹ Identical with *Pristodus*, not with *Ctenoptychius* as stated in "Genera of Fishes."

³² R. Etheridge, Jr. *Geol. Mag.* (2) 2: 244, 1825; type *Petalorhynchus benniei* Etheridge (omitted in "Genera of Fishes").

Family 44. COCHLIODONTIDÆ

This family, known only from the teeth, fitted for crushing shells, may be left provisionally with the *Janassides*, although it has much in common with the *Cestraciontes* or *Heterodontidæ*. The species belong mostly to the Carboniferous age.

COCHLIODUS Agassiz, 1838, 191.

VENUSTODUS St. John & Worthen, 1875, 380.

CHOMATODUS Agassiz, 1838, 190.

PERIPLECTRODUS St. J. & W., 1875, 380.

HELODUS Agassiz, 1838, 190.

PLATYDUS Newberry, 1875, 379.

PŒCILODUS M'Coy, 1855, 266.

HELODOPSIS Waagen, 1879, 401.

DICHELODUS Giebel, 1857, 409.

CRANODUS Trautschold, 1879, 401.

OXYTOMODUS Trautschold, 1880, 406.

PSEPHODUS (Agassiz) Morris & Roberts, (1862) 1883, 320.

VATICINODUS³³ St. J. & W., 1883, 405, 425.

STENOPTERODUS³⁴ St. J. & W., 1883, 405, 425.

STREBLODUS (Agassiz) M. & R., (1862) 1883, 320.

CHITONODUS³⁵ St. J. & W., 1883, 405, 425.

TOMODUS (Agassiz) M. & R., (1862) 1883, 422.

DELTODOPSIS³⁶ St. J. & W., 1883, 405, 425.

XYSTRODUS (Agassiz) M. & R., (1862) 1883, 320.

ORTHOPLEURODUS³⁷ St. J. & W., 1880, 405, 425.

DELTOPTYCHIUS (Agassiz) M. & R., (1862) 1883, 320.

TENIODUS St. J. & W., 1883, 425.

DELTODUS (Agassiz) M. & R., (1862) 1883, 319.

RHAMPHODUS Davis, 1883, 422.

DIPLACODUS Davis, 1884, 427.

LOPHODUS Romanowsky, 1864, 334.

CYRTONODUS Davis, 1884, 427.

PLEUROPLAX Woodward, 1889, 449.

TRIGONODUS Newberry & Worthen, 1866, 342.

XENODUS Miller, 1892, 458.

ICANODUS Miller, 1892, 458.

ASPIDODUS N. & W., 1866, 342.

PLATYXYSTRODUS Hay, 1899, 486.

SANDALODUS N. & W., 1866, 342.

PLEURODUS Hancock & Atthey, 1872, 366, 213.

³³ Logotype *V. vetustus* St. J. & W. The date of 1880 given in "Genera of Fishes" is an error.

³⁴ Logotype *S. planus* St. J. & W., as fixed by Hay.

³⁵ Logotype *C. springeri* St. J. & W.

³⁶ Orthotype *D. augustus* St. J. & W.

³⁷ Orthotype *O. carbonarius* St. J. & W.

Family 45. **TAMIOBATIDÆ**

This family is known from a single species, from the Devonian of Kentucky, one of the oldest sharks known. It has the depressed form of a ray, probably a matter of analogy only.

TAMIOBatis Eastman, 1897, 476.

Suborder **PROSARTHRI**Family 46. **ORODONTIDÆ**

The *Orodontidæ*, allies or ancestors of the *Heterodontidæ*, are the only kinds of sharks living in the Triassic, all the earlier types being then extinct.

ORODUS Agassiz, 1838, 190.

ACONDYLACANTHUS St. J. & W., 1875, 380.

CAMPODUS Koninck, 1844, 220.

STEMMATODUS St. J. & W., 1875, 380.

ASTEROPTYCHIIUS Agassiz, 1848, 239.

LEIODUS St. J. & W., 1875, 380.

ADIAPNEUSTES Gistel, 1848, 234.

DESMIODUS St. J. & W., 1875, 380.

PETRODUS M'Coy, 1848, 239.

STEMMATIAS Hay, 1899, 486.

OCTINASPIS Trautschold, 1874, 377.

EOORODUS Branson, 1914, 552.

MESODMODUS St. John & Worthen, 1875, 380.

Family 47. **HETERODONTIDÆ** (*Cestracionidæ*, *Hybodontidæ*)
(Bull-head Sharks)

To this family, characterized among other features by strong dorsal spines, many of the Ichthyodorulites are supposed to belong. Those genera of very uncertain relations are marked *Ich*.

Cestracion Klein, 1775, 40.

SPHENONCHUS Agassiz, 1843, 213.

Heterodontus Blainville, 1816, 95.

WODNIKA⁴¹ Münster, 1843, 216.

Cestracion Cuvier, 1817, 97.

THECTODUS Meyer & Plieninger, 1844, 221.

Centracion Gray,⁴² 1831, 138.

CENTRODUS Giebel, 1847, 231.

TRISTYCHIIUS⁴³ Agassiz, 1837, 186.

CENTRODUS M'Coy, 1848, 243, 408.

PTYCHACANTHUS Agassiz, 1837, 186.

PHYSONEMUS M'Coy, 1848, 239, *Ich*.

SPHENACANTHUS Agassiz, 1837, 186.

STYRACODUS Germar, 1849, 242.

ASTERACANTHUS Agassiz, 1837, 186.

SELACHIDEA Quenstedt, 1852, 251.

LEIACANTHUS Agassiz, 1837, 186.

PYCNACANTHUS Fischer von Waldheim, 1852, 250, *Ich*.

HYBODUS⁴⁴ Agassiz, 1837, 186.

DESMACANTHUS Quenstedt, 1858, 283, *Ich*.

ACRODUS Agassiz, 1837, 189, 191.

PSILACANTHUS Quenstedt, 1858, 283, *Ich*.

CTENACANTHUS Agassiz, 1837, 186, *Ich*.

NEMACANTHUS Agassiz, 1837, 186, *Ich*.

XYSTRODUS Plieninger, 1860, 298.

STROPHODUS Agassiz, 1838, 191.

LOPHODUS Symonds, 1861, 309.

Oroptychus⁴⁵ Agassiz, 1842.

Gyropleurodus Gill, 1862, 317.

MERISTODON Agassiz, 1843, 214.

Tropidodus Gill, 1862, 317.

⁴² *Tristychius* Portlock should be omitted as an error for *Tristychius* Agassiz.

⁴³ Stensiö (1921) regards *Hybodus reticulatus* Agassiz as the type of this genus.

⁴⁴ A manuscript name, apparently never defined, quoted in the *Nomenclator Zoologicus* from *Misc. Coll.* as one of the "*Cestraciontes*."

⁴⁵ The so-called *Wodnika ocoyæ* Jordan, "Fossil Fishes of Southern California," 1919, 69, from California Miocene proves to be not a tooth but a concretion.

- NEMACANTHUS Mackie, 1863, 327.
 CURTODUS Sauvage, 1867, 347.
 LEPRACANTHUS Owen, 1869, 355, Ich.
 LOPHODUS Newberry, 1870, 359.
 PALÆOSPINAX Egerton, 1872, 365.
 DREPANEPHORUS Egerton, 1872, 365.
 AGASSIZODUS St. John & Worthen, 1875, 380.
 AMACANTHUS St. J. & W., 1875, 381, Ich.
 BYTHIACANTHUS St. J. & W., 1875, 381.
 GLYMMATACANTHUS⁴² St. J. & W., 1875, 381, 425, Ich.
 GEISACANTHUS St. J. & W., 1875, 381, Ich.
 HOPLONCHUS Davis, 1876, 385, Ich.
 HYBODOPSIS Barkas, 1878, 392.
 TOMODUS⁴³ Trautschold, 1879.
 CHIASTODUS Trautschold, 1879, 401.
 ARPAGODUS Trautschold, 1879, 401.
 THAUMATACANTHUS Waagen, 1879, 401, Ich.
 OXYTOMODUS⁴⁴ Trautschold, 1880.
- BDELLODUS Quenstedt, 1882, 421.
 MERISTODON Sauvage, 1883, 425.
 DICLITODUS Davis, 1883, 422.
 EUNEMACANTHUS St. J. & W., 1883, 425, Ich.
 ACONDYLACANTHUS St. J. & W., 1883, 425, Ich.
 LISPACANTHUS Davis, 1883, 422, Ich.
 CHALAZACANTHUS Davis, 1883, 422, Ich.
 ECHINODUS Davis, 1884, 427.
 SYNECHODUS Woodward, 1888, 444.
 ACRODONCHUS Fraas, 1889, 446.
 POLYACRODUS Jaekel, 1889, 447.
 HYBODONCHUS Fraas, 1889, 446.
 FAYOLIA Renault & Zeiller, 1890, 452.
 RHABDIODUS Rohon, 1893, 462.
 EUPHYACANTHUS Traquair, 1894, 465.
 ORTHYBODUS Jaekel, 1898, 480.
 PARHYBODUS Jaekel, 1898, 480.
 PSEUDACRODUS Ameghino, 1906, 516.

⁴² Misprinted in "Genera of Fishes."

⁴³ *Nouv. Mem. Soc. Imp. Nat. Moscow*, 14: 55; type *T. argutus* Trautschold (omitted in "Genera of Fishes").

⁴⁴ *Bull. Soc. Imp. Nat. Moscow* 2: 140; substitute for *Tomodus*, preoccupied; type *Tomodus argutus* Trautschold. (Omitted in "Genera of Fishes.")

Family 48. EDESTIDÆ

A peculiar type of sharks, known only by singular bony structures now supposed fused symphyseal whorls of teeth of cestraciont sharks.

- EDESTUS Leidy, 1856, 272.
 CYNOPIDIUS Traquair, 1881, 417.
 EUCTENIUS Traquair, 1881, 417.
 SPIRAXIS Newberry, 1885, 434, Ich.
 PROSPIRAXIS Williams, 1887, 439.
 PROTOPIRATA Trautschold, 1888, 443.
- SPHENOPHORUS Newberry, 1889, 447.
 CESTOPHORUS Miller, 1892, 458.
 HELICOPRION Karpinskii, 1899, 487.
 CAMPYLOPRION Eastman, 1902, 498.
 LISSOPRION Hay, 1907, 524.
 TOXOPRION Hay, 1910, 536.

Series ICHTHYODORULITES

(Shark-spines)

We place here a number of fin spines belonging perhaps to *Heterodontidae* or to *Chimæridæ*, their relationship not yet determined.

- PRISTACANTHUS Agassiz, 1837, 186, Ich.
*Cricacanthus*⁴⁵ Agassiz, 1843, 213, Ich.
 COSMACANTHUS Agassiz, 1845, 225, Ich.
 DIMERACANTHUS Keyserling, 1846, 229, Ich.
*Gyropristis*⁴⁶ (Agassiz) King, (1843) 1850, 213, Ich.
 RYTIDOLEPIS Pander, 1856, 273, Ich.
- STENACANTHUS Leidy, 1856, 273, Ich.
 MARRACANTHUS St. John & Worthen, 1875, 381, Ich.
 COMPSACANTHUS Davis, 1883, 422, Ich.
 BRACHIACANTHUS Fritsch, 1889, 446, Ich.
 TUBULACANTHUS Fritsch, 1889, 446, Ich.
 PLATYACANTHUS Fritsch, 1889, 446, Ich.
 CALLOGNATHUS Newberry, 1889, 447, Ich.

- PHLYCTENACANTHUS Eastman, 1898, 479, ECZEMATOLEPIS Miller, 1892, 458, Ich.
 Ich. ATOPACANTHUS Hussakof & Bryant,
 EUCESTRURUS Traquair, 1901, 495, Ich. 1919, 566, Ich.
 EUCTENODOPSIS Wellburn, 1901, 495.

⁴⁶ Name only; the species, *C. jonesi* Agassiz, misprinted in "Genera of Fishes," 213.

⁴⁷ Name only; used in 1850 by W. King: "Permian Fossils," *Pal. Soc.* 1850, 222.

Order SELACHOPHIDICHTHYOIDEI

(*Pternodonta*)

This order and the next seem to find place somewhere between the *Cladoselachidae* and the *Heterodontidae*, although so far as geological evidence both groups long preceded them in time.

Family 49. CHLAMYDOSELACHIDÆ

(Frisled Sharks)

Chlamydoselachus Garman, 1884, 428.

Order NOTIDANI

(*Diplospondyli*; *Protoselachii*)

Suborder OPISTHARTHRI

Family 50. HEXANCHIDÆ

(Cow Sharks)

- Hexanchus* Rafinesque, 1810, 78. *Heptranchias*⁴⁷ Rafinesque, 1810, 78.
Monopterrhinus Blainville, 1816, 95. *Notorhynchus* Ayres, 1855, 262.
Notidanus Cuvier, 1817, 97. NOTIDANION^{48a} Jordan & Hannibal, 1923.
*Holodus*⁴⁸ Agassiz, 1842.

⁴⁷ Sometimes perverted to *Heptanchus*, the original name a condensation of *Heptabanchus*, seven-gilled.

⁴⁸ Apparently a manuscript name never defined, quoted from "Misc. Coll." in the *Nomenclator Zoologicus*, Appendix, p. 3, as equivalent to *Notidanus*.

^{48a} *Notidanion* Jordan & Hannibal, new genus; orthotype *Notidanus primigenius* Agassiz, *Poisson Fossiles*, plate 27, fig. 9: "Lateral teeth with the first cusp very large, the others few and large, 4 to 6 in number; anterior serrations very coarse."

Order EUSELACHII

Suborder GALEI

(*Scyllioidei*)

Family 51. HEMISCYLLIIDÆ

The sharks of this family are ovoviviparous, those of the other scyllioid genera have large oblong quadrate leathery egg-cases, with filaments at the corners. Some of the genera enumerated among the *Scylliorhinidae* may prove to belong here.

- Hemiscyllium* A. Smith, 1837, 190. *Cirrhoscyllium* H. M. Smith, 1913, 551.
Chiloscyllium Müller & Henle, 1838, 192.

Family 52. **SCYLLIORHINIDÆ**

(Cat-Sharks)

- Catulus* Valmont, 1768, 27.
Scylliorhinus Blainville, 1816, 95.
Scyllium Cuvier, 1817, 97.
Catulus Smith, 1837, 190.
Poroderma Smith, 1837, 190.
Pristiurus Müller & Henle, 1838, 573.
Pristidurus Bonaparte, 1839, 194.
Pristiurus Bonaparte, 1841, 208.
Thyellina Agassiz, 1843, 214.
Scylliodus Agassiz, 1843, 214.
Palæoscyllium Wagner, 1857, 276.
Orthodon Coquand, 1860, 295.
Cephaloscyllium Gill, 1861, 306.
Halælorus Gill, 1861, 306.
Parascyllium Gill, 1861, 306.
Palæoscyllium von der Marck, 1863, 298.
Mesiteia Kramberger, 1885, 433.
Cantioscyllium Woodward, 1889, 449.
Proscyllium Hilgendorf, 1904, 508.
Parmaturus Garman, 1906, 518.
Haploblepharus Garman, 1913, 548.
Apristurus Garman, 1913, 548.
Atelomycterus Garman, 1913, 548.
Catulus (Valmont) Garman, 1913, 548.

Family 53. **PENTANCHIDÆ**

First dorsal wanting.

- Caninoa*⁴⁹ Nardo, 1844, 221.
Caninotus Nardo, 1844, 222.
Thalassokleptes Gistel, 1848, 235.
*Pentanchus*⁵⁰ Smith, 1912, 546.

⁴⁹ This genus, which has received three names, is perhaps mythical.⁵⁰ This genus, distinguished by the absence of the first dorsal, is regarded by Regan as a mutilated scylliorhinoid; this is an error as a second (undescribed) species, of this family, locally known as *Kagurazame*, occurs in Sagami Bay.Family 54. **ORECTOLOBIDÆ**

- Orectolobus* Bonaparte, 1837, 187.
Stegostoma Müller & Henle, 1837, 192, 573.
Crossorhinus M. & H., 1838, 192.
Synchismus Gill, 1861, 306.
Brachælorus Ogilby, 1906, 519.
Heteroscyllium Regan, 1908, 530.
Cirriscyllium Ogilby, 1908, 529.
Eucrossorhinus Regan, 1908, 530.
*Tomodon*⁵¹ Leidy, 1865, 338.

⁵¹ *Tomodon* = *Diplotomodon* Leidy, 1868, "Genera of Fishes," 352, is regarded by Dr. Hay as the tooth of a Mosasaur reptile. The name is preoccupied.Family 55. **GINGLYSTOMIDÆ**This family is scarcely distinct from the *Orectolobidæ*.

- Nebrius* Rüppell, 1835, 184.
Ginglymostoma Müller & Henle, 1837, 190.
Plicodus Winkler, 1874, 377.
Acrodothis Leidy, 1877, 391.
*Nebrodes*⁵² Garman, 1913.

⁵² *Plagiostomia*, 56; type *Nebrius concolor* Rüppell substituted for *Nebrius*, regarded as preoccupied. (Omitted in "Genera of Fishes.")Family 56. **PSEUDOTRIAKIDÆ**

- Pseudotriakis*⁵³ Capello, 1868, 349.

⁵³ Also written *Pseudotriacis*.

Family 57. RHINEODONTIDÆ

*Rhincodon*⁵⁴ Smith, (1849), 174, 244. *Micristodus* Gill, 1865, 337.

⁵⁴ Probably a misprint for *Rhineodon* or *Rhinodon*.

Series LAMNOIDEI

Family 58. CARCHARIIDÆ (*Odontaspidae*)

(Sand Sharks)

*Carcharias*⁵⁵ Rafinesque, 1810, 77. OXYTES Giebel, 1847, 231.
Odontaspis Agassiz, 1836, 184. *Eugomphodus* Gill, 1864, 331.
Triglochis Müller & Henle, 1838, 192. XIPHODOLAMIA^{55a} Leidy, 1877, 301.

⁵⁵ The status of the name *Carcharias* as determined by the International Commission of Zoological Nomenclature makes it identical with *Odontaspis*, although the obvious intent of Rafinesque was to apply it to the group called *Carcharhinus*.

^{55a} This genus, having the teeth with bifid roots, the branches closely appressed, can not belong to the *Hexanchidae*, in which family the teeth all have solid roots.

Family 59. MITSUKURINIDÆ

(Goblin Sharks)

RHINOGNATHUS Davis, 1885, 431. *Mitsukurina* Jordan, 1898, 480.
 SCAPANOREYNCHUS Woodward, 1889, 449.

Family 60. LAMNIDÆ

(Mackerel Sharks; Man-Eaters)

Isurus Rafinesque, 1810, 78. OTODUS Agassiz, 1843, 214.
Lamna Cuvier, 1817, 97. *Exoles* Gistel, 1848, 236.
Lamia Risso, 1826, 119. *Plectrostoma* Gistel, 1848, 237.
Selanonius Fleming, 1828, 122. *Isuropsis* Gill, 1861, 306.
 OXYRHINA Agassiz, 1838, 190, 218. XENODOLAMIA^{56a} Leidy, 1877.
 CORAX Agassiz, 1843, 214. ORTHACODUS Woodward, 1889, 449.
 SPHENODUS Agassiz, 1843, 214. PSEUDOCORAX Priem, 1897, 478.
Carcharodon Müller & Henle, 1838, 190, 192, 574. LEPTOSTYRAX Williston, 1900, 491.
 *Carcharocles*⁵⁶ Jordan & Hannibal, 1923.

⁵⁶ New genus; orthotype *Carcharodon auriculatus* (Blainville). Similar to *Carcharodon*, but with a strong denticle on each side of the base of the tooth. Teeth narrower and more erect than in *Carcharodon*, their edges finely serrated.

^{56a} *Journ Acad Nat. Sci. Phila.*, 8: 251; logotype *X. pravus* Leidy. (Omitted in "Genera of Fishes.")

Family 61. ALOPIIDÆ

Vulpecula Valmont, 1768, 27. *Alopecias* Müller & Henle, 1838, 192.
Alopias Rafinesque, 1810, 78. *Vulpecula* (Valmont) Garman, 1913, 548.

Family 62. CETORHINIDÆ

(Basking Sharks)

*Tetroras*⁵⁷ Rafinesque, 1810, 77. *Polyprosopus* Couch, 1862, 313.
Cetorhinus Blainville, 1816, 95. HANNOVERA Van Beneden, 1871, 360.
Selache Cuvier, 1817, 97.

⁵⁷ A name given to a doubtful or perhaps wholly mythical account apparently of the Basking Shark (*Cetorhinus*).

Series *GALEOIDEI*Family 63. *GALEIDÆ* (*Galeorhinidæ*; *Carcharhinidæ*)
(Gray Sharks)

- Galeus* Valmont, 1768, 27.
Mustelus Valmont, 1768, 27.
Galeus Klein, 1775, 37.
Cynocephalus Klein, 1777, 42, 407.
Mustelus Linck, 1790, 49.
*Aodon*⁵⁸ Lacépède, 1798, 55.
*Carcharias*⁵⁹ Rafinesque, 1810, 77.
Galeus Rafinesque, 1810, 78.
Mustelus Leach, 1812, 84.
Mustellus Fischer, 1813, 85.
Carcharhinus Blainville, 1816, 95.
Galeorhinus Blainville, 1816, 95.
Carcharias Cuvier, 1817, 97.
Galeus Cuvier, 1817, 97.
Mustelus Cuvier, 1817, 97.
Leptocarias Smith, 1837, 190.
Scoliodon Müller & Henle, 1837, 190.
Galeocерdo M. & H., 1837, 192, 573.
Leptocarias M. & H., 1837, 193, 573.
*Physodon*⁶⁰ M. & H., 1838.
Aprion M. & H., 1838, 192.
Hypoprion M. & H., 1838, 192.
Triakis M. & H., 1838, 192.
Triænodon M. & H., 1838, 192.
Loxodon M. & H., 1838, 192.
Thalassorhinus M. & H., 1838, 192.
Prionodon M. & H., 1838, 192.
HEMIPRISTIS Agassiz, 1843, 214.
GLYPHIS Agassiz, 1843, 402.
Myrmillo Gistel, 1848, 237.
Prionace Cantor, 1849, 241.
Hemigaleus Bleeker, 1852, 250.
GALEODES Heckel, 1854, 259.
MICRODUS Emmons, 1857, 275.
PROTOGALEUS Molin, 1860, 298.
Platypodon Gill, 1861, 305, 331.
Hypoprionodon Gill, 1861, 306.
Eulamia Gill, 1861, 306.
Isogomphodon Gill, 1861, 306.
Lamiopsis Gill, 1861, 306.
Isoplagiodon Gill, 1861, 306.
Aprionodon Gill, 1861, 303, 306.
Cynocephalus (Klein) Gill, 1861, 306.
Boreogaleus Gill, 1861, 306.
Chænogaleus Gill, 1861, 306.
Rhinotriacis Gill, 1862, 317.
Eugaleus Gill, 1864, 330.
Pleuracromylon Gill, 1864, 330.
*ALOIOPSIS*⁶¹ Lioy, 1865, 388.
Leptocarcharias (Smith) Günther, 1870, 357.
Dirrhizodon Klunzinger, 1870, 358.
PSEUDOGALEUS Jaekel, 1894, 465.
Scylliogaleus Boulenger, 1902, 497.
*Cynias*⁶² Gill, 1903.
HUNSRUCKIA Traquair, 1903, 506.
GEMUNDINA Traquair, 1903, 506.
CARCHARIOIDES Ameghino, 1906, 516.
Calliscyllium Tanaka, 1912, 546.
CARCHAROIDES Chapman, 1913, 547.
Eridacnis Smith, 1913, 551.
Rhizoprion Ogilby, 1915, 557.
*GYRACE*⁶³ Jordan & Hannibal, 1922.

⁵⁸ Perhaps imaginary.⁵⁹ As "rigidly construed" the name *Carcharias* of Rafinesque must be excluded from this family.⁶⁰ *Plagiostomen*, 30; orthotype *Carcharias mulleri* Müller & Henle. (Omitted in "Genera of Fishes.")⁶¹ Misprinted *Hopiopsis* by Zittel.⁶² *Proc. U. S. Nat. Mus.*, 960, 1903; orthotype *Squalus canis* Mitchell. (Omitted in "Genera of Fishes.")⁶³ *Gyrace* new genus; orthotype *Scymnus occidentalis* Agassiz, California Miocene, allied to *Galeorhinus* but with the longer teeth peculiarly twisted, and coarsely serrated at base.

Family 64. **SPHYRNIDÆ**
(Hammer-head Sharks)

This family is hardly separable from the *Galeidæ*, differing only in the form of the head.

Cestracion Klein, 1775, 40.

Sphyrna Rafinesque, 1810, 82.

Sphyrnias Rafinesque, 1815, 92.

Cestrorhinus Blainville, 1816, 95.

Zygæna Cuvier, 1817, 97.

Sphyrichthys Thienemann, 1828, 173.

Platysqualus Swainson, 1839, 204.

Sphyrna Van der Hoeven, 1849, 243.

Cestracion (Klein) Gill, 1861, 306, 303.

Eusphyrna Gill, 1861, 306.

Reniceps Gill, 1861, 306.

Cestracion (Walbaum after Klein)

Ogilby, 1916, 560.

Family 65. **PRISTIOPHORIDÆ**
(Saw Sharks)

Pristiophorus Müller & Henle, 1837, 192, 573.

Family 66. **PLIOTREMIDÆ**

Pliotrema Regan, 1906, 520.

Order **TECTOSPONDYLI**
Suborder **SQUALOIDEI**

Family 67. **SQUALIDÆ**
(Dog-fishes)

These sharks which, like the rays, lack the anal fin have also simplified or degenerate vertebræ in which the hard material is arranged in rings without radiation. In the most primitive family, *Squalidæ*, spines are present in each of the two dorsal fins, a character which may indicate descent from allies of the *Heterodontidæ*, in which group (*Cestraciontes*) such spines also occur.

Squalus Linnæus, 1758, 11.

Dalatias Rafinesque, 1810, 77.

*Cerictius*⁶⁴ Rafinesque, 1810, 78.

Etmopterus Rafinesque, 1810, 78.

Acanthorhinus Blainville, 1816, 95.

Spinax Cuvier, 1817, 97.

Acanthias Risso, 1826, 119.

Centroscyllium Müller & Henle, 1838, 193.

Centrophorus M. & H., 1838, 192.

Acanthidium Lowe, 1839, 195.

Spinax Bonaparte, 1845, 225.

Lepidorhinus Bonaparte, 1845, 225.

Acanthias Bonaparte, 1845, 225.

Carcharias Gistel, 1848, 234.

Centropterus Costa, 1861, 301.

Entoxychirus Gill, 1862, 317.

Scymnodon Bocage & Capello, 1864, 329.

Centroscymnus B. & C., 1864, 329.

Machephilus Johnson, 1867, 346.

Centrophoroides Davis, 1885, 431.

Paracentroscyllium Alcock, 1889, 444.

Deania Jordan & Snyder, 1902, 499.

Zameus Jordan & Fowler, 1903, 504.

Nasisqualus Smith, 1912, 546.

*Centroselachus*⁶⁵ Garman, 1913.

Protospinax Woodward, 1918, 565.

Atractophorus Gilchrist, 1922. (See index.)

⁶⁴ Mythical.

⁶⁵ *Plagiostomia*, 306; orthotype *Centrophorus crepidater* Bocage and Capello. (Omitted in "Genera of Fishes.")

Family 68. **OXYNOTIDÆ****Oxynotus** Rafinesque, 1810, 82.**Centrina** Cuvier, 1817, 97.Family 69. **SCYMNORHINIDÆ** (*Dalatiidæ*⁶⁶; *Echinorhinidæ*)**Echinorhinus** Blainville, 1816, 95.**Euprotomicrus**⁶⁷ Gill, 1864, 331.**Scymnus** Cuvier, 1817, 97.**Isistius** Gill, 1864, 331.**Goniodus** Agassiz, 1836, 184.**Leius** Kner, 1865, 338.**Scymnorhinus** Bonaparte, 1845, 225.**Cirrhigaleus** Tanaka, 1912, 546.**Borborodes** Gistel, 1848, 237.**Squaliolus** Smith, 1912, 546.

⁶⁶The earliest logotype of *Dalatis* Rafinesque was one of the *Squalidæ*, possibly *Centrophorus granulosus*.

⁶⁷This genus and the next two are very aberrant, and each might stand as type of a distinct family. The same is also true of *Echinorhinus*.

Family 70. **SOMNIOSIDÆ**

(Sleeper Sharks)

Somniosus LeSueur, 1818, 107.**Rhinoscymnus** Gill, 1864, 331.**Læmargus** Müller & Henle, 1838, 192.**Heteroscymnus** Tanaka, 1912, 546.**Leiodon** Wood, 1847, 232.Suborder **SQUATINOIDEI**Family 71. **SQUATINIDÆ**

(Angel Sharks)

Rhina Klein, 1775, 39.**PHORCYNUS** Thiollière, 1854, 261.**Squatina** Duméril, 1906, 75.**Rhina** (Klein) Gill, 1861, 306.**Rhina** Rafinesque, 1810, 78.**SCALDIA** Le Hon, 1871, 361.**Squalraia** De la Pylaie, 1835, 183.**TRIGONODUS** Winkler, 1878, 398.**THAUMAS** Münster, 1842, 212.Order **BATOIDEI**(*Hypotremata*)Suborder **SARCURA**Family 72. **PRISTIDÆ**

(Saw-fishes)

Pristis Klein, 1775, 41.**AMBLYPRISTIS** Dames, 1888, 440.**Pristis** Linck, 1790, 49.**SCLERORHYNCHUS** Woodward, 1889, 449.**Pristis** Latham, 1794, 52.**Pristiopsis** Fowler, 1905, 512.**Pristibatis** Serville, 1829, 134.**EOPRISTIS** Stromer, 1905, 516.**MYRIOSTEON** Gray, 1864, 332.**ONYCHOPRISTIS**⁶⁸ Stromer, 1918.**PROPRISTIS** Dames, 1883, 422.

⁶⁸*Abhandl. Bayer. Akad.*, 28: 17; orthotype *Gigantichthys numidus* Haug.

Family 73. **RHINIDÆ** (*Rhamphobatidæ*; *Rhynchobatidæ*)**Rhina** Bloch & Schneider, 1801, 59.**Rhamphobatis** Gill, 1861, 306.

Rhynchobatus⁶⁹ Müller & Henle, 1837,
192, 573.

⁶⁹Sometimes spelled *Rhynchobatis*. The above is the original form.

Family 74. **RHINOBATIDÆ**
(Guitar-fishes)

- | | |
|--|--|
| <i>Rhinobatos</i> Klein, 1775, 40. | <i>EURYARTHRA</i> Agassiz, 1843, 214. |
| <i>Rhinobatus</i> Linck, 1790, 49. | <i>CYCLARTHURUS</i> Agassiz, 1843, 214. |
| <i>Rhinobatus</i> Bloch & Schneider, 1801, 59. | <i>Glaucostegus</i> Bonaparte, 1845, 225. |
| <i>Leiobatus</i> Rafinesque, 1810, 78. | <i>Demiurga</i> Gistel, 1848, 237. |
| <i>Squatinoraja</i> Nardo, 1824, 116. | <i>SPATHOBATIS</i> Thiollière, 1849, 244, 261. |
| <i>AELLOPOS</i> Münster, 1836, 185. | <i>Rhynchobatis</i> Philippi, 1857, 276. |
| <i>Syrrhina</i> Müller & Henle, 1838, 192. | <i>Zapteryx</i> Jordan & Gilbert, 1880, 404. |
| <i>Trygonorrhina</i> ⁷⁰ M. & H., 1838, 192. | <i>Tarsistes</i> Jordan, 1919, 567. |

⁷⁰ This name appears first in *Ann. Mag. Nat. Hist.* (2), 2: 90, 1838, spelled with "rr."

Family 75. **ASTERODERMIDÆ**

- | | |
|---|--|
| <i>ASTERODERMUS</i> ⁷¹ Agassiz, 1843, 214. | <i>BELEMNOBATIS</i> Thiollière, 1854, 261. |
|---|--|

⁷¹ *Asterodermus* Agassiz, 1843, is perhaps preoccupied by *Astrodermus* Bonelli, 1829.

Family 76. **PLATYRHINIDÆ** (*Discobatidæ*; *Analithidæ*)

- | | |
|---|--|
| <i>Platyrrhina</i> Müller & Henle, 1838, 193. | <i>Discobatus</i> Garman, 1880, 402. |
| <i>Analithis</i> Gistel, 1848, 237. | <i>Zanobatus</i> Garman, 1913, 548. |
| <i>Platyrrhinoidis</i> Garman, 1880, 402. | <i>Arhynchobatis</i> Waite, 1909, 534. |

Family 77. **RAJIDÆ**
(Rays; Skates)

- | | |
|---|---|
| <i>Raja</i> ⁷² Linnæus, 1758, 11. | <i>Uraptera</i> M. & H., 1838, 193. |
| <i>Leiobatus</i> Klein, 1775, 38. | <i>Hieroptera</i> Fleming, 1841, 209. |
| <i>Dipturus</i> Rafinesque, 1810, 78. | <i>ACTINOBATIS</i> Agassiz, 1843, 214. |
| <i>Cephaleutherus</i> Rafinesque, 1810, 83. | <i>Psammobatis</i> Günther, 1870, 357. |
| <i>Platopterus</i> Rafinesque, 1815, 92. | <i>ONCOBATIS</i> Leidy, 1871, 362. |
| <i>Lævirajæ</i> ⁷³ Nardo, 1827, 121. | <i>Leucoraja</i> Malm, 1877, 391. |
| <i>Propterygia</i> Otto, 1824, 117. | <i>Amblyraja</i> Malm, 1877, 391. |
| <i>Rajabatis</i> De La Pylaie, 1835, 183. | <i>Malacorrhina</i> Garman, 1877, 389. |
| <i>Batis</i> Bonaparte, 1837, 187. | <i>ACANTHOBATIS</i> Larrazet, 1886, 436. |
| <i>Læviraja</i> Bonaparte, 1837, 187. | <i>PLATYSPONDYLUS</i> Haug, 1905, 514. |
| <i>Dasybatus</i> Bonaparte, 1837, 187. | <i>Malacobatis</i> Gracianov, 1907, 523. |
| <i>Sympterygia</i> Müller & Henle, 1838, 193. | <i>Dactylobatus</i> Bean & Weed, 1909, 531. |

⁷² Also spelled *Raia* by authors.

⁷³ Name given in plural form only.

Family 78. **ARTHROPTERIDÆ**

- ARTHROPTERUS* Agassiz, 1843, 214.

Suborder **NARCACIONTES**

Family 79. **TORPEDINIDÆ** (*Narcaciontidæ*; *Narcobatidæ*)
(Torpedos; Numb-fishes)

- | | |
|---|--------------------------------------|
| <i>Torpedo</i> ⁷⁴ Forskål, 1775, 32. | <i>Torpedo</i> Duméril, 1806, 75. |
| <i>Narcacion</i> Klein, 1775, 39. | <i>Torpedo</i> Rafinesque, 1810, 82. |

Narcobatus Blainville, 1816, 95.
Narke Kaup, 1826, 121.
Temera Gray, 1831, 138.
Narcine Henle, 1834, 180.
Astrape Müller & Henle, 1838, 193.
Syrraxis (Jourdan) Bonaparte, 1841, 208.
NARCOPTERUS Agassiz, 1843, 214.
Discopyge Tochudi, 1846, 230.
Hypnos Duméril, 1852, 250.
Narcacion (Klein) Bleeker, 1866, 340.
Gonionarce Gill, 1861, 307.

Cyclonarce Gill, 1861, 307.
*Tetranarce*⁷⁵ Gill, 1861, 307.
Fimbriatorpedo Fritsch, 1886, 435.
Gymnotorpedo Fritsch, 1886, 435.
Benthobatis Alcock, 1898, 478.
Hypnarce Waite, 1902, 501.
Tetronarcine Tanaka, 1908, 531.
Bengalichthys Annandale, 1909, 531.
Typhlonarke Waite, 1909, 534.
Eunarce Fowler, 1910, 535.
Heteronarce^{75a} Regan, 1921.

⁷⁴ In part; the name is used in an oblique case only, and the Electric Ray is confused with the Electric Cat-fish.

⁷⁵ Misprinted *Tetronarce*.

^{75a} Orthotype *H. garmani* Regan.

Suborder MASTICURA

(*Centrobates*)

Family 80. DASYATIDÆ (*Trygonidæ*; *Dasybatidæ*) (Sting-Rays)

Dasybatus Klein, 1775, 39.
Dasyatis Rafinesque, 1810, 78.
Uroxis Rafinesque, 1810, 83.
Trygonobatus Blainville, 1816, 94.
Leiobatus Blainville, 1816, 95.
Trygon (Adanson) Cuvier, 1817, 98.
Trygon Isidore Geoffroy St. Hilaire, 1826, 120.
*Pastinaca*⁷⁶ Nardo, 1827, 121.
Pastinachus Rüppell, 1828, 122.
Anacanthus (Ehrenberg) Cuvier, 1829, 131.
Tæniura Müller & Henle, 1837, 189.
Himantura M. & H., 1837, 190.
Gymnura M. & H., 1837, 190.
Urogymnus M. & H., 1837, 190.
Hemitrygon M. & H., 1837, 190.
Pteroplatea M. & H., 1838, 193.
Trygonoptera M. & H., 1838, 193.
Urolophus M. & H., 1838, 193.
Hyplophus M. & H., 1838, 193.

Pastinaca Dekay, 1842, 210.
CYCLOBATIS Egerton, 1844, 220.
Rhachinotus Cantor, 1849, 241.
Pastinaca Gronow, 1854, 258.
Pastinaca Duméril, 1856, 268.
ALEXANDRINUS Molin, 1861, 308.
Urottrygon Gill, 1863, 324.
Neotrygon Castelnau, 1873, 368.
GRYPHODOBATIS Leidy, 1877, 391.
HELIOBATIS Marsh, 1877, 391.
XIPHOTRYGON Cope, 1879, 399.
Dasybatus (Klein) Garman, 1885, 432.
Discobatis Miklukho-Maclay & Macleay, 1886, 436.
Discotrygon Fowler, 1910, 535.
Pteroplatytrygon Fowler, 1910, 535.
HYPOLOPHITES Leriche, 1913, 549.
*Amphotistius*⁷⁷ Garman, 1913.
Urobatis Garman, 1913, 548.
Dasybatus (Klein, Walbaum) Ogilby, 1916, 560.

⁷⁶ Name given in plural form only.

⁷⁷ *Plagiostomia*, 8; type *Trygon sabina* Le Sueur. (Omitted in "Genera of Fishes.")

Family 81. POTAMOTRYGONIDÆ (*Elipsuridæ*)

Elipsurus Schomburgk, 1842, 212.
Paratrygon Duméril, 1865, 337.
DYNATOBATIS Larrazet, 1886, 436.

Disceus Garman, 1877, 389.
Potamotrygon Garman, 1877, 389.

Family 82. **BRACHIOPTERIDÆ****Brachioptera** Gracianov, 1906, 518.**Phanerocephalus**⁷⁸ Gracianov, 1906, 518.⁷⁸ Misprinted *Planerocephalus*.Family 83. **PTYCHODONTIDÆ****PTYCHODUS** Agassiz, 1839, 194.**HEMIPTYCHODUS** Jaekel, 1894, 465.**SPORETODUS** Cope, 1874, 375.Family 84. **MYLIOBATIDÆ** (*Aëtobatidæ*)

(Eagle Rays)

Aëtobatus⁷⁹ Blainville, 1816, 95.**GONIOBATIS** Le Hon, 1871, 361.**Myliobatis** (Duméril) Cuvier, 1817, 573.**MESOBATIS** Leidy, 1877, 391.**Aëtopleura** Müller & Henle, 1838, 193.**BATES** Probst, 1877, 392.**PTYCHOPLEURUS** Agassiz, 1838, 190.**APOCOPODON** Cope, 1886, 434.**Stoasodon** Cantor, 1849, 241.**PROMYLIOBATIS** Jaekel, 1894, 465.**AULODUS** Dixon, 1850, 245.**Aëtomyllæus** Garman, 1908, 528.**Goniobatis** Agassiz, 1858, 277.**Pteromyllæus** Garman, 1913, 548.**Holorhinus** Gill, 1862, 317.**HYLÆOBATIS** Woodward, 1915, 558.**PLINTHICUS** Cope, 1869, 354.⁷⁹ Also written *Aëtobatis*.Family 85. **RHINOPTERIDÆ****Rhinoptera** (Kuhl) Cuvier, 1829, 173.**Mylorhina** Gill, 1865, 337.**Zygobatis** Agassiz, 1836, 184, 214.**Micromesus** Gill, 1865, 337.Family 86. **MOBULIDÆ** (*Mantidæ*; *Cephalopteridæ*)

(Devil Rays)

Cephalopterus Risso, 1810, 77.**Ceratoptera** Müller & Henle, 1838, 193.**Mobula** Rafinesque, 1810, 82.**Pterocephala** Swainson, 1839, 204.**Apterurus** Rafinesque, 1810, 83.**Brachioptilon** Newman, 1849, 244.**Dicerobatus** Blainville, 1816, 95.**Diabolichthys** Holmes, 1856, 270.**Manta** Bancroft, 1829, 174, 573.**Ceratobatis** Boulenger, 1897, 476.Subclass **HOLOCEPHALI**Order **CHIMAEROIDEI**(*Chismopnea*) (Chimæras)Family 87. **PTYCTODONTIDÆ****AULACOSTEUS** Eichwald, 1846 (1860), 295, 229.**RHYNCHODUS** Newberry, 1873, 371.**PTYCTODUS** Pander, 1858, 283.**RAMPHODUS** Jaekel, 1903, 504.**RINODUS** Newberry & Worthen, 1866,**ACMONIODUS** Hussakof & Bryant, 1919, 566.

342.

DEINODUS H. & B., 1919, 566.Family 88. **SQUALORAIDÆ****SQUALORAIA** Riley, 1826, 173.**CHALCODUS** Zittel, 1887, 439.**SPINACORHINUS** Agassiz, 1836, 184.

Family 89. MYRIACANTHIDÆ

- | | |
|---|--|
| CTENACANTHUS ⁸⁰ Agassiz, 1836, 186. | BATACANTHUS ⁸⁰ St. John & Worthen, 1883, 425. |
| MYRIACANTHUS Agassiz, 1837, 186. | ACONDYLACANTHUS St. J. & W., 1883, 425. |
| PHYSONEMUS ⁸⁰ M'Coy, 1848, 239. | METOPACANTHUS Zittel, 1887, 439. |
| XYSTRACANTHUS ⁸⁰ Leidy, 1859, 292. | CHIMÆROPSIS Zittel, 1887, 439. |
| DREPANACANTHUS ⁸⁰ Newberry & Worthen, 1866, 342. | |
| PROGNATHODUS Egerton, 1872, 365. | |

⁸⁰ Probably all these represent frontal claspers of a chimæroid; see Eastman, *Proc. U. S. Nat. Mus.*, 52: 262, 1917.

Family 90. CHIMÆRIDÆ

(Chimæras or Elephant-fishes)

- | | |
|---|--|
| Chimæra Linnæus, 1758, 11. | ISOTÆNIA Cope, 1875, 379. |
| LEPTACANTHUS Agassiz, 1837, 186. | DIPHRISSA Cope, 1875, 379. |
| ORACANTHUS Agassiz, 1837, 186. | BRYACTINUS Cope, 1875, 379. |
| EDAPHODON Buckland, 1838, 191. | HEDRONCHUS Cope, 1876, 385. |
| PASSALODON Buckland, 1838, 191. | MYLEDAPHUS Cope, 1876, 385. |
| <i>Ameibodon</i> Buckland, 1838, 191. | ELASMOGNATHUS Newton, 1878, 397. |
| ISCHYODUS Egerton, 1843, 214. | CLADACANTHUS (Agassiz) Davis, (1842) 1883, 213, 422. |
| ELASMUS Egerton, 1843, 214. | HARPACANTHUS Traquair, 1886, 436. |
| GANODUS Agassiz, 1843, 214. | ELASMODECTES Newton, 1888, 444. |
| PSITTACODON Agassiz, 1843, 214. | STETHACANTHUS Newberry, 1889, 447. |
| ERISMACANTHUS ⁸¹ M'Coy, 1848, 239. | VAILLANTOÖNIA ⁸² Meunier, 1891, 455. |
| DIPRIACANTHUS ⁸¹ M'Coy, 1848, 408. | <i>Palæchimæra</i> ⁸³ Walcott, 1891, 456. |
| MYLOGNATHUS Leidy, 1856, 272. | ELASMODECTES Newton, 1891, 456. |
| CHIMÆRACANTHUS Quenstedt, 1858, 283. | PALÆOMYLUS Woodward, 1891, 456. |
| <i>Hydrolagus</i> Gill, 1862, 317. | DICTYORHABDUS ⁸³ Walcott, 1892, 459. |
| AULUXACANTHUS Sauvage, 1867, 347. | PACHYMYLUS Woodward, 1892, 460. |
| LEPTOMYLUS Cope, 1869, 354. | BRACHYMYLUS Woodward, 1892, 460. |
| DIPRISTIS Gervais, 1869, 504. | AMYLODON Storms, 1894, 466. |
| SPHAGEPÆA Cope, 1870, 356. | BELEMNACANTHUS Eastman, 1898, 479. |
| DIPRISTIS Marsh, 1870, 359. | Bathyalopex Collett, 1901, 492. |
| EUMYLODUS Leidy, 1873, 370. | Psychichthys Fowler, 1907, 523. |
| LECRACANTHUS ⁸¹ St. John & Worthen, 1875, 381. | ACANTHORHINA Fraas, 1910, 535. |
| GAMPSACANTHUS ⁸¹ St. J. & W., 1875, 381. | |

⁸¹ These four nominal genera are regarded by Eastman as identical and based on frontal claspers of male chimæroids.

⁸² Fossil egg-case of a chimæroid.

⁸³ It seems by no means certain that *Dictyorhabdus* (*Palæchimæra*) is really a fish relic. Occurring in the Ordovician, it is far older than any known *Chimæra*. It may be a *Graptolite*. Cockerell informs me that he "has good material showing surface sculpture and is entirely convinced that it is not a vertebrate."

Note on ICHTHYODORULITES: The fin-spines named below may have belonged to species of *Chimæridæ* or of some related family.

CYLINDRACANTHUS Leidy, 1856, 273.

RABDACANTHUS Pander, 1856, 274.

BYSSACANTHUS Salter, 1861, 309.

LISTRACANTHUS Newberry & Worthen,
1870, 359.

CYRTACANTHUS Newberry, 1873, 371.

OSTRACACANTHUS Davis, 1879, 399.

EUCTENIUS Traquair, 1881, 417.

EUACANTHUS Trautschold, 1883, 426.

GNATHACANTHUS Davis, 1883, 422.

APATEACANTHUS Woodward, 1891, 456.

GLYPTORHYNCHUS Leriche, 1905, 515.

Family 91. RHINOCHIMERIDÆ

Harriotta Goode & Bean, 1894, 464.

Rhinochimæra Garman, 1901, 493.

Anteliochimæra Tanaka, 1909, 534.

Family 92. CALLORHYNCHIDÆ

Callorhynchus Gronow, 1763, 18.

Callorhynchus (Gronow) Cuv., 1817, 98.

Class PISCES

(True Fishes)

Subclass CROSSOPTERYGII

The fishes of this group possess a jointed pectoral limb which may be homologous with that of the primitive sharks of the order *Ichthyotomi*. It is not certain, however, that this is not a case of analogy, in which case it does not indicate genetic relationship. The class is certainly very old in geologic time, standing at the base of the series of true fishes, while at the same time holding an ancestral relation to the amphibia and the higher vertebrates. A few species are still extant.

Order RHIPIDISTIA

(*Taxistia*)

Family 93. HOLOPTYCHIDÆ

HOLOPTYCHUS⁸⁴ Agassiz, 1839, 194.

DENDRODUS Owen, 1841, 209.

PLATYGNATHUS Agassiz, 1844, 218.

GLYPTOLEPIS Agassiz, 1844, 218.

SCLEROLEPIS Eichwald, 1844, 220.

LAMNODUS Agassiz, 1845, 225.

APEDODUS Leidy, 1858, 283.

ERIPTYCHIUS⁸⁵ Walcott, 1892, 459.

MAWSONIA Woodward, 1907, 525.

⁸⁴ Usually spelled *Holoptychius*.

⁸⁵ Scales of the Ordovician age, doubtful as to interpretation.

Family 94. MEGALICHTHYIDÆ⁸⁶ (*Rhizodontidæ*)

MEGALICHTHYS Agassiz & Hilbert, 1836, 185.

RHIZODUS Owen, 1840, 207.

CRICODUS Agassiz, 1844, 217.

SAURIPTERIS⁸⁷ Hall, 1843, 214.

COLONODUS M'Coy, 1848, 239.

GYROPTYCHIUS M'Coy, 1848, 239.

RABDIOLEPIS Emmons, 1857, 275.

POLYPLACODUS Pander, 1860, 298.

TRISTICHOPTERUS Egerton, 1861, 301.

STREPSODUS Young, 1866, 344.

RHIZODOPSIS Young, 1866, 344.

DENDROPTYCHIUS (Huxley) Young, 1866, 344.

GASTRODUS Owen, 1867, 347.

CHARACODUS Owen, 1867, 347.

GANOLODUS Owen, 1867, 347.

ARCHICHTHYS Hancock & Atthey, 1870, 358.

LABYRINTHODONTOSAURUS Barkas, 1873, 366.

ORTHOGNATHUS Barkas, 1873, 366.

SIGMODUS^{87a} Waagen, 1879.

EUSTHENOPTERON⁸⁸ Whiteaves, 1881, 418.

CÆLOSTEUS⁸⁹ Newberry, 1887.

DICTYONOSTEUS⁹⁰ Stromer, 1918.

⁸⁶ The name *Megalichthys* has priority over its synonym *Rhizodus*.

⁸⁷ Usually written *Sauripterus*.

^{87a} *Loc. cit.*, 10; orthotype *S. dubius* Waagen. (Omitted in "Genera of Fishes.")

⁸⁸ Misprinted *Eusthenopleuron* in "Genera of Fishes."

⁸⁹ *Trans. N. Y. Ac. Sci.*, 6: 137; type *C. ferox* Newberry. (Omitted in "Genera of Fishes.")

⁹⁰ *Bull. Geol. Soc. Upsala*, 16: 116; orthotype *D. arcticus* Stromer.

Family 95. **OSTEOLEPIDÆ** (*Rhombodipteridæ*)

- OSTEOLEPIS Valenciennes, 1829, 134.
 DIPLOPTERUS Agassiz, 1835, 181.
 MEGALICHTHYS Agassiz, 1844, 217.
 GLYPTOPOMUS Agassiz, 1844, 218.
 TRIPTERUS M'Coy, 1848, 239.
 PARABATRACHUS Owen, 1853, 254.
 DIPLOPTERAX M'Coy, 1855, 265.
 TRIPLOPTERUS, M'Coy, 1855, 266.
 GYROLEPIS Kade, 1858, 281.
 GLYPTOLÆMUS (Huxley) Anderson, 1859, 287.
 SPOROLEPIS Romanowsky, 1864, 334.
 PLINTHOLEPIS Romanowsky, 1864, 334.
 RHOMBOPTYCHUS (Huxley) Young, 1866, 344.
 ECTOSTEORHACHIS Cope, 1880, 402, 422.
 THURSIUS Traquair, 1888, 443.
 GLYPTOGNATHUS Woodward, 1891, 456.
 POROLEPIS Woodward, 1891, 456.
 GYROPELTUS Rohon, 1893, 462.
 PALÆOSTEUS Rohon, 1893, 462.

Family 96. **ONYCHODONTIDÆ**

- ONYCHODUS Newberry, 1857, 276.

Order **ACTINISTIA**(*Cælacanthini*)Family 97. **CÆLACANTHIDÆ**

- UNDINA Münster, 1834, 180.
 MACROPOMA Agassiz, 1835, 181, 280.
 LIBYS Münster, 1842, 212.
 CÆLACANTHUS Agassiz, 1844, 218.
 HOPLOPYGUS Agassiz, 1844, 217.
 HEPTANEMA Bellotti, 1857, 274.
 KOKKODERMA⁹¹ Quenstedt, 1858, 283.
 GRAPHIURUS Kner, 1866, 341.
 LOPHOPRIONOLEPIS Steinla, 1868, 350.
 PEPLORHINA Cope, 1873, 368.
 CONCHIOPSIS Cope, 1873, 368.
 DIPLURUS Newberry, 1878, 396.
 RHABDODERMA Reis, 1888, 443.
 CÆLACANTHOPSIS Traquair, 1901, 576.
 LEIODERMA⁹² Stensiö, 1918.
 WIMANIA⁹³ Stensiö, 1921.
 SASSENIA⁹⁴ Stensiö, 1921.
 AXELIA⁹⁵ Stensiö, 1921.
 MYLACANTHUS⁹⁶ Stensiö, 1921.
 SCLERACANTHUS⁹⁷ Stensiö, 1921.
 DIPLOCERCIDES⁹⁸ (Jaekel) Stensiö, 1922.

⁹¹ Later corrected to *Coccoderma*.

⁹² Erik A. Son Stensiö, "Zur Kenntniss des Devons und des Kulms an der Klaas, Billenbag Spitzbergen," *Geol. Inst. Bull. Upsala*, 16; orthotype *Leioderma sinuosa* Stensiö; name preoccupied, replaced by *Wimania* Stensiö, 1921.

⁹³ "Triassic Fishes from Spitzbergen," p. 51; orthotype *Leioderma sinuosa* Stensiö.

⁹⁴ *Loc. cit.*, p. 84; orthotype *Sassenia tuberculata* Stensiö.

⁹⁵ *Loc. cit.*, p. 89; orthotype *Axelia robusta* Stensiö.

⁹⁶ *Loc. cit.*, p. 107; orthotype *Mylacanthus lobatus* Stensiö.

⁹⁷ *Loc. cit.*, p. 111; orthotype *Scleracanthus asper* Stensiö.

⁹⁸ Stensiö, "Ueber Zwei Cælacanthiden aus dem Oberdevon von Wildungen," *Palæontologisches Zeitschrift*, 4: 168; orthotype *Holoptychius kayseri* von Koenen.

Family 98. **TARRASIIDÆ**

- TARRASIUS Traquair, 1881, 418.
 CONCHOPOMA Kner, 1868, 352.
 PALÆOPHICHTHYS Eastman, 1908, 527.

Order CLADISTIA

Family 99. POLYPTERIDÆ

Polypterus St. Hilaire, 1798, 54.

Family 100. CALAMOICHTHYIDÆ

Herpetoichthys (Smith, J. A.) Günther, 1865, 338.
Erpetoichthys Smith, 1865, 339.
Calamoichthys Smith, 1866, 343.

Subclass DIPNEUSTA

(*Dipnoi*; name preoccupied)

Order CTENODIPTERINI

(*Ctenodipneusta*)

Family 101. DIPTERIDÆ

DIPTERUS Sedgwick & Murchison, 1828, 125	PALÆDAPHUS Van Beneden & De Koninck, 1864, 329.
CATOPTERUS Agassiz, 1833, 177.	GOMPHOLEPIS Barrande, 1872, 362.
POLYPHRACTUS Agassiz, 1844, 218.	GANORHYNCHUS Traquair, 1873, 371.
STAGONOLEPIS Agassiz, 1845, 225.	HELIODUS Newberry, 1875, 379.
OSTEOPLAX M'Coy, 1848, 239.	DIPNOITES Fritsch, 1888, 441.
CONCHODUS M'Coy, 1848, 239.	TYLODUS Rohon, 1893, 462.
CHEIRODUS Pander, 1858, 283.	CHELOMODUS Rohon, 1893, 462.
ARCHÆONECTES ⁹⁹ Von Meyer, 1859.	PENTLANDIA Watson & Day, 1916, 561.

⁹⁹ *Palæontographica*, 7: 12; type *A. pertusus* Von Meyer. (Omitted in "Genera of Fishes.")

Family 102. PHANEROPLEURIDÆ

PHANEROPLEURON (Huxley) Anderson, 1859, 287.
 SCAUMENACIA Traquair, 1893, 463.

Order SIRENOIDEI

Family 103. CTENODONTIDÆ

CTENODUS Agassiz, 1838, 191.	PTYONODUS Cope, 1877, 388.
RHADAMISTA Gistel, 1848, 235.	MEGAPLEURON Gaudry, 1883, 423.
CAMPYLOPLEURON Huxley, 1867, 346.	GNATHORHIZA ¹⁰⁰ Cope, 1883, 422.
SAGENODUS Owen, 1867, 347.	HEMICTENODUS Jaekel, 1890, 452.

¹⁰⁰ A genus of uncertain relationship.

Family 104. URONEMIDÆ

URONEMUS Agassiz, 1844, 217.
 GANOPRISTODUS Traquair, 1881, 417.

Family 105. CERATODONTIDÆ

(Lung-fishes)

CERATODUS Agassiz, 1838, 191.	GOSFORDIA Woodward, 1890, 453.
SCROPHA Gistel, 1848, 235.	EPICERATODUS Teller, 1891, 456.
NEOCERATODUS ¹⁰¹ Castelnau, 1876, 384.	SYNTHETODUS Eastman, 1898, 476.
OMPAX ¹⁰¹ Castelnau, 1879, 399.	METACERATODUS Chapman, 1910, 534.

¹⁰¹ Perhaps mythical, in part at least.

Family 106. **LEPIDOSIRENIDÆ**
(Mud Sirens)

Lepidosiren Fitzinger, 1837, 189. **Amphibichthys** Hogg, 1841, 209.

Family 107. **PROTOPTERIDÆ**

Protopterus Owen, 1839, 196. **Rhinocryptis** Peters, 1844, 222.
Protomelus Hogg, 1841, 209.

Subclass ACTINOPTERI

Superorder GANOIDEI

Order CHONDROSTEI

(*Lysopteri; Podopterygia; Lyomeri; Heterocerci; Glaniostomi*)

Family 108. **PALÆONISCIDÆ**

PALÆONISCUM ¹⁰² Blainville, 1818, 108.	SPHÆROLEPIS Fritsch, 1877, 389.
PALÆOTHRISUM Blainville, 1818, 108.	ACENTROPHORUS Traquair, 1877, 392.
ACROLEPIS Agassiz, 1833, 177.	GONATODUS Traquair, 1877, 392.
GYROLEPIS Agassiz, 1833, 177.	COSMOPTYCHIUS Traquair, 1877, 392.
AMBLYPTERUS Agassiz, 1833, 177.	MICROCONODUS Traquair, 1877, 392.
PYGOPTERUS Agassiz, 1833, 177.	RHADINICHTHYS Traquair, 1877, 392.
CHEIROLEPIS Agassiz, 1835, 181.	HOLURUS Traquair, 1881, 418.
COCCOLEPIS Agassiz, 1844, 218.	CRYPHIOLEPIS Traquair, 1881, 418.
MICROLEPIS Eichwald, 1844, 220.	CANOBIUS Traquair, 1881, 418.
ISODUS M'Coy, 1848, 239.	EUPALÆONISCUS Rzehak, 1881, 417.
ELONICHTHYS Giebel, 1848, 233.	ANAGLYPHUS Rzehak, 1881, 417.
UROSTHENES Dana, 1848, 233.	ACTINOPHORUS Newberry, 1889, 447.
TRACHELACANTHUS Fischer von Waldheim, 1850, 246.	ATHERSTONIA Woodward, 1889, 449.
PROPALÆONISCUS Pomel, 1853, 254.	APATEOLEPIS Woodward, 1890, 453.
OXYGNATHUS Egerton, 1855, 264.	DRYDENIUS Traquair, 1890, 453.
MECOLEPIS Newberry, 1856, 273.	MESOPOMA Traquair, 1890, 453.
RHABDOLEPIS Troschel, 1857, 276.	PALÆONISCINOTUS Rohon, 1890, 452.
EURYLEPIS Newberry, 1857, 276.	ÆDUA Sauvage, 1891, 456.
UROLEPIS Bellotti, 1857, 274.	ARCHÆONISCUS Sauvage, 1891, 456.
COSMOLEPIS Egerton, 1858, 280.	TEGEOLEPIS Miller, 1892, 458.
CENTROLEPIS Egerton, 1858, 280.	HAPLOLEPIS Miller, 1892, 458.
THRISSONOTUS (Agassiz), (1844) 1858, 217.	TRISSOLEPIS Fritsch, 1893, 460.
MYRIOLEPIS Egerton, 1864, 330.	GANOLEPIS Woodward, 1893, 463.
CYCLOPTYCHIUS Young, 1866, 344.	PYRITOCEPHALUS Fritsch, 1894, 464.
GANACRODUS Owen, 1867, 347.	SCELEPTOPHORUS Fritsch, 1894, 464.
PLATYSIAGUM Egerton, 1872, 365.	MICROCONODUS Traquair, 1895, 470.
LEIOLEPIS Goldenburg, 1873, 369.	FARNELLIA Traquair, 1898, 484.
NEMATOPTYCHIUS Traquair, 1875, 382.	PSILICHTHYS ¹⁰³ Hall, 1900.
HYPTERUS Owen, 1876, 386.	SCHIZOSPONDYLUS Fritsch & Bayer, 1902, 498.
	DIPHYODUS Lambe, 1902, 500.

¹⁰² Written by Agassiz *Palæoniscus*.

¹⁰³ Thomas Sergeant Hall, "A New Genus and a New Species of Fish from the Mesozoic Rocks of Victoria," *Mem. Royal Soc. Victoria*, New Series, 12: 121. Triassic, Melbourne.

ELPISOPHOLIS Woodward, 1908, 531.
 HELICHTHYS Broom, 1909, 532.
 HYDROPESSUM Broom, 1909, 532.
 PELICHTHYS Broom, 1913, 547.
 DISICHTHYS Broom, 1913, 547.

CARUICHTHYS Broom, 1913, 546.
 BIRGERIA¹⁰⁴ Stensiö, 1921.
 BOREOSOMUS¹⁰⁵ Stensiö, 1921.
 GLAUCOLEPIS¹⁰⁶ Stensiö, 1921.
 ACORRHABDUS¹⁰⁷ Stensiö, 1921.

¹⁰⁴ "Triassic Fishes, Spitzbergen," p. 151, 1921; orthotype *Saurichthys mougeoti* Agassiz.

¹⁰⁵ *Loc. cit.*, p. 211; orthotype *Acrolepis arcticus* Woodward.

¹⁰⁶ *Loc. cit.*, p. 200; orthotype *Glaucolepis gyrolepidoides* Stensiö.

¹⁰⁷ *Loc. cit.*, p. 220; orthotype *Acorrhodus berteli* Stensiö.

Family 109. PLATYSOMIDÆ (*Scrotidæ*)

EURYNOTUS Agassiz, 1835, 181.
 PLATYSOMUS Agassiz, 1835, 181.
 GLOBULODUS Münster, 1842, 212.
 CHEIRODUS M'Coy, 1848, 239, 408.
 STROTES Gistel, 1848, 237.
 NOTACMON Gistel, 1848, 236.
 PLECTROLEPIS (Agassiz) Egerton,
 (1835) 1850, 181, 218, 246.
 TURSEODUS Leidy, 1858, 283.
 MESOLEPIS Young, 1866, 344.
 EURYSOMUS¹⁰⁸ Young, 1866, 344.

AMPHICENTRUM Young, 1866, 344.
 WARDICHTHYS Traquair, 1875, 382.
 BENEDENIUS Traquair, 1878, 396.
 PHANEROSTEON Traquair, 1881, 418.
 CHEIRODOPSIS Traquair, 1881, 418.
 HEMICLADODUS Davis, 1884, 427.
 BENEDENICHTHYS Traquair, 1890, 453.
 UROPTERYX (Agassiz) Woodward, 1891,
 457.
 PODODUS Agassiz, 1901, 217.
 ECRINESOMUS Woodward, 1910, 537.

¹⁰⁸ Misprinted *Euryosomus* in "Genera of Fishes."

Family 110. DORYPTERIDÆ

DORYPTERUS Münster, 1842, 212.

Family 111. DICTYOPYGIDÆ (*Catopteridæ*)

CATOPTERUS Redfield, 1837, 190.
 DICTYOPYGE Egerton, 1847, 231.

REDFIELDIUS Hay, 1899, 486.
 PERLEIDUS¹⁰⁹ de Alessandri, 1910.

¹⁰⁹ Gulio de Alessandri, "Studii sui pesci triasici della Lombardia," *Mem. Soc. Ital. Sci. Nat. Mus. Civico Stor. Nat. Milano*, 7: 49; orthotype *Semionotus altolepis* Deecke.

Family 112. ASTERODONTIDÆ (*Colobodontidæ*)

ASTERODON Münster, 1841, 209.
 COLOBODUS Agassiz, 1844, 217.
 THOLODUS Meyer, 1846, 229, 249.
 OMPHALODUS Meyer, 1847, 322.
 CENCHRODUS Meyer, 1847, 407.
 HEMILOPAS Meyer, 1847, 408.
 NEPHROTUS Meyer, 1851, 249.

CHARITODON^{109a} Schmid, 1861.
 EUPLEURODUS Gürich, 1884, 428.
 DACTYLOLEPIS Kunisch, 1885, 433.
 CRENILEPIS Dames, 1888, 440.
 DOLLOPTERUS Abel, 1906, 516.
 MERIDENSIA¹¹⁰ Andersson, 1916.
 PARALEPIDOTUS¹¹¹ Stolley, 1920.

^{109a} *Loc. cit.*, 30; orthotype *C. glabridens* Schmid. (Omitted in "Genera of Fishes.")

¹¹⁰ Erik Andersson, "Ueber Einige Triasfische aus der Cava Trefontane, Tessin," *Bull. Geol. Inst. Upsala*, 15: 25; orthotype *Pholidophorus meridensis* de Alessandri.

¹¹¹ Ernst Stolley, "Beiträge zur Kenntnis des deutschen Muschelkalken," *Paläontographica*, 63: 41; orthotype *Colobodus ornatus* Agassiz.

Family 113. **BELONORHYNCHIDÆ**

- SAURICHTHYS Agassiz, 1834, 179. GIFFONUS Costa, 1862, 312.
 STYLORHYNCHUS¹¹² Martin, 1873. BROWNEICHTHYS Woodward, 1889, 449.
 ICHTHYORHYNCHUS Bellotti, 1857, 274. SAURORHYNCHUS¹¹³ (Münster) Reis, 1891,
 BELONORHYNCHUS Bronn, 1858, 279. 207.

¹¹² Carl Martin, "Ein Beitrage zur Kenntniss fossiler Euganoiden," *Zeitsch. Deutsche Geol. Gesellsch.*, 25: 725; type *S. tenuirostris* Martin. (Omitted in "Genera of Fishes.")

¹¹³ Name only in 1840, defined by Reis in 1891; *Teleosaurus*, p. 346, is a genus of reptiles.

Family 114. **DIPHYODONTIDÆ**

- DIPHYODUS Lambe, 1902, 500. STENOPROPOMA Hay, 1903, 503.

Family 115. **CHONDROSTEIDÆ**

- CHONDROSTEUS (Agassiz) Egerton, GYROSTEUS (Agassiz) Egerton, (1844),
 (1844) 1858, 217, 280. 1858, 217, 280.

Order **GLANIOSTOMI**Family 116. **ACIPENSERIDÆ**

(Sturgeons)

- Acipenser Linnæus, 1758, 11. Scaphirhynchus Heckel, 1836, 185.
 Ichthyocolla Geoffroy, 1767, 24. Lioniscus H. & F., 1836, 185.
 Sterleta Gùldenstädt, 1772, 168. Sterledus Bonaparte, 1845, 225.
 Sturio Rafinesque, 1810, 82. Ellops Gistel, 1848, 236.
 Dinectus¹¹⁴ Rafinesque, 1818, 108. Scaphirhynchops Gill, 1863, 323.
 Sterletus Rafinesque, 1820, 113. Schipa Brandt, 1869, 354.
 Sterletus Brandt & Ratzeburg, 1833, 178. Kessleria Boghdanov, 1882, 418.
 Helops B. & R., 1833, 178. Pseudoscaphirhynchus Nikolskii, 1900,
 Huso B. & R., 1833, 177. 490.
 Scaphirhynchus Müller, 1835, 182. Parascaphirhynchus Forbes & Richard-
 Sturio Müller, 1835, 182. son, 1905, 512.
 Antaceus Heckel & Fitzinger, 1836, 185. Hemiscaphirhynchus Berg, 1912, 542.

Order **SELACHOSTOMI**Family 117. **POLYODONTIDÆ**

(Paddle-fishes)

- Polyodon Lacépède, 1797, 54. Proceros¹¹⁵ Rafinesque, 1820, 113.
 Polyodon Bloch & Schneider, 1801, 59. CROSSOPHOLIS¹¹⁶ Cope, 1866, 421, 434.
 Spatularia Shaw, 1804, 74. Psephurus Günther, 1873, 369.
 Platirostra Le Sueur, 1818, 107. PHOLIDURUS Woodward, 1889, 449.

¹¹⁴ A mythical sturgeon.

¹¹⁵ Mythical.

¹¹⁶ Misprinted *Crossophilus* in "Genera of Fishes," p. 434.

Order PYCNODONTI

Family 118. PYCNODONTIDÆ

PALÆOBALISTUM Blainville, 1818, 108.
 PYCNODUS Agassiz, 1833, 177.
 GYRODUS Agassiz, 1833, 177.
 MICRODON Agassiz, 1833, 177.
 SCAPHODUS Agassiz, 1844, 217, 453.
 GYRONCHUS Agassiz, 1844, 217.
 ACROTEMNUS Agassiz, 1844, 217.
 PERIODUS Agassiz, 1844, 217.
 PROSCINETES Gistel, 1848, 237.
 COCCODUS Pictet, 1850, 247.
 MESODON Wagner, 1851, 250.
 ANCISTRODON Derby, 1852, 251.
 GLOSSODUS Costa, 1853, 253.
 CÆLODUS Heckel, 1856, 270.
 STEMMATODUS Heckel, 1856, 270, 409.
 ANOMIOPHTHALMUS Costa, 1856, 268.

HADRODUS¹¹⁷ Leidy, 1858, 283.
 TYPODUS¹¹⁸ Quenstedt, 1858, 283.
 MESTURUS Wagner, 1862, 321.
 PHACODUS Cope, 1869, 354.
 CROMMYODUS Cope 1870, 356.
 ELLIPSODUS Cornuel, 1877, 389.
 URANOPLOSUS Sauvage, 1879, 401.
 COSMODUS Sauvage, 1879, 401.
 ATHRODON Sauvage, 1880, 405.
 XENOPHOLIS Davis, 1885, 431.
 ANOMÆODUS Forir, 1887, 437.
 GRYPODON Hay, 1899, 486.
 POLYPSEPHIS Hay, 1899, 486.
 MACROMESODON Blake, 1905, 576.
 EOMESODON Woodward, 1918, 565.

¹¹⁷ Perhaps the tooth of a reptile.

¹¹⁸ This can not replace the preoccupied name *Mesodon*, as *Typodus* Meyer, 1847, is earlier.

Family 119. SEMIONOTIDÆ (*Lepidotidæ*; *Stylodontidæ*;
Dapediidæ; *Sphærodontidæ*)

DAPEDIUM¹¹⁹ Leach, 1822, 115.
 TETRAGONOLEPIS Brown, 1830, 136, 177.
 SEMIONOTUS Agassiz, 1832, 140.
 LEPIDOTES¹²⁰ Agassiz, 1832, 141.
 LEPIDOSAURUS Von Meyer, 1832, 141.
 SPHÆRODUS Agassiz, 1833, 177.
 AMBLYURUS Agassiz, 1836, 184.
 SARGODON Plieninger, 1847, 232.
 ISCHYPTERUS Egerton, 1847, 231.
 PHOLIDOTUS Williamson, 1849, 244.
 PLEUROLEPIS Quenstedt, 1852, 251.
 PRIONOPLEURUS¹²¹ Fischer de Waldheim,
 1852.
 SERROLEPIS Quenstedt, 1852, 251.
 ÆCHMODUS Egerton, 1854, 256.
 DIPTERONOTUS Egerton, 1854, 256.
 HETEROSTICHUS Wagner, 1860, 300.
 HOMÆOLEPIS Wagner, 1860, 300.

UROCOMUS Costa, 1862, 312.
 SCROBODUS Von der Marck, 1863, 327.
 HETEROSTROPHUS Wagner, 1863, 329.
 PLESIODUS Wagner, 1863, 329.
 CLEITHROLEPIS Egerton, 1864, 330.
 EULEPIDOTUS Egerton, 1868, 349.
 OMALOPLEURUS Costa, 1873, 368.
 GYROLEPIDOTUS Rohon, 1889, 448.
 ARCHÆOSEMIONOTUS Deecke, 1889, 445.
 PRISTISOMUS Woodward, 1890, 453.
 DOLICHOPTERUS Compter, 1891, 454.
 LEPIDOPTERUS Pohlig, 1892, 459.
 PROLEPIDOTUS Michael, 1893, 462.
 ÆTHEOLEPIS Woodward, 1895, 470.
 APHNELEPIS Woodward, 1895, 470.
 PARAICHTHYS Ameghino, 1899, 484.
 EOSEMIONOTUS¹²² Stolley, 1920.

¹¹⁹ Written *Dapedius* by Agassiz.

¹²⁰ Afterwards written *Lepidotus*.

¹²¹ *Bull. Sci. Imp. Nat. Moscow*, 25: 171; type *P. bronni* Fischer. (Omitted in "Genera of Fishes.")

¹²² *Op. cit.*, 68; orthotype *Allolepidotus vogelii* Fritsch.

Order HOLOSTEI

Suborder GINGLYMODI

(Lepidostei)

Family 120. ASPIDORHYNCHIDÆ

- | | |
|------------------------------------|-----------------------------------|
| ASPIDORHYNCHUS Agassiz, 1833, 177. | PLATYCERHYNCHUS Costa, 1864, 330. |
| BELONOSTOMUS Agassiz, 1834, 180. | HEMIRHYNCHUS Kner, 1867, 346. |
| DICHELOSPONDYLUS Costa, 1856, 268. | APATEOPHOLIS Woodward, 1890, 453. |
| OPHIRACHIS Costa, 1856, 268. | VINCTIFER Jordan, 1920, 570. |

Family 121. LEPISOSTEIDÆ

(Gar-Pikes)

- | | |
|---|---|
| <i>Acus</i> Catesby, 1771, 31. | Cylindrosteus Rafinesque, 1820, 112. |
| <i>Psalisostomus</i> Klein, 1781, 44. | Atractosteus Rafinesque, 1820, 112. |
| Lepisosteus ¹²⁸ Lacépède, 1803, 66. | PNEUMATOSTEUS Cope, 1870, 356. |
| Sarchirus Rafinesque, 1818, 109. | CLASTES Cope, 1873, 368. |
| <i>Litholepis</i> ¹²⁴ Rafinesque, 1818, 109. | |

¹²⁸ Usually corrected to *Lepidosteus*.¹²⁴ Mythical Gar-Pike.

Order HALECOMORPHI

(Cycloganoidei; Protospondyli; Amioidi)

Family 122. PACHYCORMIDÆ

(Pelecopteridæ; Erisichthidæ; Protosphyranidæ)

- | | |
|--------------------------------------|------------------------------------|
| SAUROPSIS Agassiz, 1832, 140. | PSEUDOTHRISOPS Sauvage, 1875, 381. |
| PACHYCORMUS Agassiz, 1833, 177. | HETEROTHRISOPS Sauvage, 1875, 381. |
| SAUROSTOMUS Agassiz, 1833, 177. | PELECOPTERUS Cope, 1875, 379. |
| PROTOSPHYRÆNA Leidy, 1856, 273. | AGASSIZIA Vetter, 1881, 418. |
| PACHYLEPIS Quenstedt, 1858, 283. | DIPLOLEPIS Vetter, 1881, 418. |
| LYCODUS Quenstedt, 1858, 283. | LEEDSIA Woodward, 1889, 448. |
| HYPSCORMUS Wagner, 1860, 300. | LEEDSICHTHYS Woodward, 1889, 449. |
| EUTHYNOTUS Wagner, 1860, 300. | PARATHRISOPS Sauvage, 1891, 456. |
| CYCLOSPONDYLUS Quenstedt, 1867, 347. | PROSAUROPSIS Sauvage, 1893, 462. |
| ERISICHTHE Cope, 1872, 364. | PROTOSAUROPSIS Sauvage, 1894, 465. |
| CEPHENOPLOSUS Sauvage, 1874, 377. | |

Family 123. MACROSEMIIDÆ

- | | |
|--------------------------------------|------------------------------------|
| NOTAGOGUS Agassiz, 1833, 177. | CALIGNATHUS Costa, 1853, 253. |
| MACROSEMIUS Agassiz, 1834, 179. | HISTIONOTUS Egerton, 1854, 256. |
| PROPTERUS Agassiz, 1834, 179. | LEGNONOTUS Egerton, 1854, 256. |
| ORHIOPSIS Agassiz, 1834, 179. | ORTHURUS Kner, 1866, 341. |
| DISTICHOLEPIS Thiollière, 1850, 247. | APHANEPTYGUS Bassani, 1879, 398. |
| PETALOPTERYX Pictet, 1850, 247. | EUSEMIUS Vetter, 1881, 418. |
| ELENNIOMÆUS Costa, 1850, 245. | MACREPISTIUS Cope, 1894, 464. |
| RHYNCHONCODES Costa, 1850, 245. | ENCHELYOLEPIS Woodward, 1918, 565. |

Family 124. **FURIDÆ** (*Eugnathidæ*; *Isopholidæ*)

The name *Eugnathus* is preoccupied. Of the substitute names, *Furo* and *Isopholis*, the former has priority.

- | | |
|---|-------------------------------------|
| URÆUS Agassiz, 1832, 140. | EURYPOMA Huxley, 1866, 341. |
| PTYCHOLEPIS Agassiz, 1832, 140. | ISOCOLUM Egerton, 1868, 349. |
| CATURUS Agassiz, 1834, 179. | OSTEORHACHIS Egerton, 1868, 349. |
| EUGNATHUS Agassiz, 1839, 194. | HETEROLEPIDOTUS Egerton, 1872, 365. |
| AMBLYSEMIUS Agassiz, 1844, 217. | HARPACTES Egerton, 1876, 385. |
| <i>Conodus</i> Agassiz, 1844, 217. | HARPACTIRA Egerton, 1876, 385. |
| FURO Gistel, 1848, 236. | LISSOLEPIS Davis, 1884, 227. |
| STROBILODUS Wagner, 1851, 250. | ISOPHOLIS Zittel, 1887, 439. |
| LOPHIOSTOMUS ¹²⁵ Egerton, 1852, 250. | CRENILEPIS Dames, 1888, 440. |
| ENDACTIS Egerton, 1858, 280. | NEORHOMBOLEPIS Woodward, 1888, 444. |
| MACROPOMA (Agassiz) Egerton, (1844)
1858, 217. | ALLOLEPIDOTUS Deecke, 1889, 445. |
| CALLOPTERUS Thiollière, 1858, 284. | OTOMITLA Felix, 1891, 454. |
| BRACHYICHTHYS Winkler, 1862, 320. | ASTHENOCORMUS Woodward, 1895, 470. |
| EURYCORMUS Wagner, 1863, 329. | SPANIOLEPIS Kramberger, 1905, 514. |
| DITAXIODUS Owen, 1866, 342. | DOLLOPTERUS Abel, 1906, 516. |
| THLATTODUS Owen, 1866, 342. | AINIA Jordan, 1919, 567. |

¹²⁵ Misprinted *Lophistomus* in "Genera of Fishes."

Family 125. **ARCHÆOMÆNIDÆ**

ARCHÆOMÆNE Woodward, 1895, 470.

Family 126. **LIODESMIDÆ**

LIODESMUS Wagner, 1863, 377, 329. LOPHIURUS Vetter, 1881, 418.

Family 127. **AMIIDÆ** (*Amiatidæ*)
(Bow-fins)

- | | |
|-------------------------------|------------------------------|
| Amia Linnæus, 1766, 23. | AMIOPSIS Kner, 1863, 327. |
| Amiatus Rafinesque, 1815, 91. | PAPPICHTHYS Cope, 1873, 368. |
| MEGALURUS Agassiz, 1833, 177. | PROTAMIA Leidy, 1873, 370. |
| CYCLURUS Agassiz, 1844, 218. | HYPAMIA Leidy, 1873, 370. |
| NOTÆUS Agassiz, 1844, 218. | UROCLES Jordan, 1919, 567. |
| SYNERGUS Gistel, 1848, 236. | |

Superorder **TELEOSTEI**
(The Bony Fishes)Order **ISOSPONDYLI**
(*Physostomi*; *Malacopterygii*)
(The Soft-rayed Fishes)Suborder **PHOLIDOPHOROIDEI**Family 128. **PHOLIDOPHORIDÆ**

- | | |
|-----------------------------------|--|
| PHOLIDOPHORUS Agassiz, 1832, 140. | CERAMURUS (Egerton) Brodie, 1845, 226. |
| MICROPS Agassiz, 1833, 177. | PERIERGUS Gistel, 1848, 237. |

NOTHOSOMUS¹²⁶ (Agassiz) Egerton,
(1844) 1858, 217, 280.
THORACOPTERUS Bronn, 1858, 279.
PLEUROPHOLIS Egerton, 1858, 280.
PHOLIDOPLEURUS Bronn, 1858, 279.
MEGALOPTERUS Kner, 1866, 341.

PELTOPLEURUS Kner, 1866, 341.
PTERYGOPTERUS Kner, 1867, 346.
PROHALECITES Deecke, 1889, 445.
BALEICHETHYS Rohon, 1890, 452.
GIGANTOPTERUS Abel, 1906, 516.

¹²⁶ Misprinted *Nothosoma* in "Genera of Fishes." *Nothosomus* Bassani, 434, "Genera of Fishes," should be canceled.

Family 129. OLIGOPLEURIDÆ

OLIGOPLEURUS Thiollière, 1850, 247.
IONOSCOPUS¹²⁷ Costa, 1853, 253.
Holochondrus^{127a} Thiollière, 1854.
MACRORHIPIS Wagner, 1863, 329.
ÆNOSCOPUS Costa, 1864, 330.

OPSIGONUS¹²⁸ (Kramberger). Bassani,
1882, 418.
SPATHIURUS Davis, 1887, 431.
AMPHILAPHURUS Davis, 1887, 431.
ATTAKEOPSIS Thiollière, 1858, 284, 366.

¹²⁷ Altered to *Ænoscopus* by authors.

^{127a} Name undefined.

¹²⁸ *Opsigonus*, 1895, "Genera of Fishes," p. 469, should be canceled.

Family 130. LEPTOLEPIDÆ

Ichthyolithus Germar, 1826, 120.
LEPTOLEPIS Agassiz, 1832, 141.
THRISSOPS Agassiz, 1833, 177.
ASCALABOS Münster, 1839, 196.
ÆTHALION Münster, 1842, 212.
MEGASTOMA Costa, 1845, 226.
OXYGONIUS (Agassiz) Brodie, 1845, 226.
THARSIS Giebel, 1848, 233.
LYCOPTERA Müller, 1848, 239.

SARGINITES Costa, 1850, 245.
EURYSTETHUS Sauvage, 1877, 392.
CTENOLEPIS (Agassiz) Woodward,
(1844) 1895, 217, 470.
VIDALIA Sauvage, 1903, 506.
THARRHIAS Jordan & Branner, 1908, 528.
CEARANA J. & B., 1908, 528.
PARATHRISSOPS Eastman, 1914, 553.
PACHYTHRISSOPS^{128a} Woodward, 1918.

^{128a} *Monogr. Pal. Soc.*, 1918, 128, orthotype *P. lævis*, Woodward.

Suborder ELOPOIDEA

Family 131. ELOPIDÆ

(Ten-pounders)

This family, of which but one genus is now living, shows much variation in dentition. *Spaniodon*, *Enneles*, and other genera differing widely from the usual type. It should perhaps be further subdivided. With the *Megalopidæ* and *Pachyrhizodontidæ*, the *Elopidæ* agrees with *Amia* in the presence of the gular plate, wanting in all other groups of fishes.

Elops Linnæus, 1766, 23.
Mugilomorus Lacépède, 1803, 67.
Trichonotus Rafinesque, 1815, 90.
RHACOLEPIS¹²⁹ Agassiz, 1841, 208.
CALAMOPLEURUS Agassiz, 1841, 208.

AULOLEPIS Geinitz, 1849, 408.
SAUROPSIDIUM Costa, 1850, 245.
SPANIODON Pictet, 1850, 247.
HISTIALOSA Gervais, 1855, 409.
ELOPOPSIS Heckel, 1856, 270.

¹²⁹ Misprinted *Phacolepis* in the original paper.

- RHABDOLEPIS Von Der Marck, 1863, 327.
 CÆUS¹³⁰ Costa, 1864, 264.
 HYPTIUS Costa, 1864, 330.
 HOLCOLEPIS Von Der Marck, 1865, 339, 352.
 DYPTEROLEPIS (Steinla) Geinitz, 1868, 349.
 MICROPETALOLEPIS (Steinla) Geinitz, 1868, 349.
 PERIGRAMMATOLEPIS (Steinla) Geinitz, 1868, 349.
 ACROGRAMMATOLEPIS (Steinla) Geinitz, 1868, 350.
 LEPTOGRAMMATOLEPIS (Steinla) Geinitz, 1868, 349.
 ANÆDOPOGON Cope, 1871, 360.
 THRISSOPATER Günther, 1872, 365.
 THRISSOPTEROIDES Von der Marck, 1873, 370.
 OSMEROLEPIS Fritsch, 1875, 379.
 HEMIELOPOPSIS Bassani, 1879, 398.
 LEWISIA Davis, 1885, 431.
 PROTELOPS Laube, 1885, 433.
 HYPSPONDYLUS Kramberger, 1885, 433.
 LYROLEPIS Romanovsky, 1886, 436.
 ESOCOLOPS Woodward, 1901, 495.
 ELOPIDES (Ag.) Woodward, 1901, 495, 219.
 NOTELOPS Woodward, 1901, 495.
 EURYGNATHUS (Agassiz) Woodward, (1845) 1901, 224.
 PARELOPS Fritsch & Bayer, 1902, 498.
 DINELOPS Woodward, 1907, 527.
 ENNELES Jordan & Branner, 1908, 528.
 HELMINTHOLEPIS Cockerell, 1919, 565.
 ECTASIS Jordan & Gilbert, 1919, 569.
 ENNELICHTHYS Jordan, 1920, 570.
 BRANNERION Jordan, 1920, 570.

¹³⁰ Misprinted *Cacus*.

Family 132. RAPHIOSAURIDÆ (*Pachyrhizodontidæ*)

- MEGALODON Agassiz, 1835, 181.
 RAPHIOSAURUS Owen, 1842, 212.
 PACHYRHIZODUS (Agassiz) Dixon, 1850, 246.
 CONOSAURUS Gibbes, 1850, 246.
 ONCHOSAURUS¹³¹ Gervais, 1852, 408.
 ISCHYRHIZA¹³¹ Leidy, 1856, 272.
 CONOSAUROPS Leidy, 1868, 352.
 ACRODONTOSAURUS Mason, 1869, 355.
 ANOGMIUS Cope, 1871, 360.
 CYCLOTOMODON Cope, 1876, 385.
 ORICARDINUS, Cope, 1877, 388.

¹³¹ It is likely that both *Onchosaurus* and *Ischyrhiza* are reptilian teeth.

Family 133. MEGALOPIDÆ (Tarpons; Grande-Écailles)

- Amia* Browne, 1789, 46.
 MEGALOPS Lacépède, 1803, 66.
 OCULEUS (Commerson) Lacépède, 1803, 70.
 BRISBANIA Castelnau, 1877, 388.
 TARPON Jordan & Evermann, 1896, 473.

Family 134. GANOLYTIDÆ

- ETRINGUS Jordan, 1907, 525.
 GANOLYTES Jordan, 1919, 568.
 GANOËSSUS Jordan, 1920, 571.

Suborder ALBULOIDEI

Family 135. ALBULIDÆ (Lady-fishes)

- ALBULA Gronow, 1763, 20.
 ALBULA Scopoli, 1777, 42.
 ALBULA Bloch & Schneider, 1801, 59.
 BUTYRINUS Lacépède, 1803, 65.
 GLOSSODUS Cuvier, 1815, 93.
 PISODUS Agassiz, 1845, 227.
 CONORHYNCHUS (Nozemann) Gill, 1861, 303.
 PETALOLEPIS (Steinla) Geinitz, 1868, 350.
 APSOPELIX Cope, 1871, 360.
 CYCLOIDES¹³² Winkler, 1878, 398.
 DIXONINA Fowler, 1911, 538.

¹³² Very doubtful, perhaps not a fish scale.

Family 136. **THRYPTODONTIDÆ** (*Plethodontidæ*)¹³³

PLETHODUS Dixon, 1850, 245.

THRYPTODUS Loomis, 1900, 490.

ANOGMIVS Cope, 1877, 388.

PSEUDOTHRYPTODUS Loomis, 1900, 490.

¹³³ The name *Plethodontidæ* is already used for a family of Salamanders.Suborder **CLUPEOIDEI**Family 137. **CHANIDÆ**

CHANOS Lacépède, 1803, 67.

PTYCHOLEPIS Gray, 1842, 211.

LUTODEIRA Rüppell, 1828, 122, 184.

PROCHANOS Bassani, 1879, 398.

SCOLIOSTOMUS Rüppell, 1828, 122.

CHANOIDES Woodward, 1901, 495.

Family 138. **ANCYLOSTYLIDÆ**A single genus, apparently related to the *Chanidæ*.**Anclostylos** Kramberger, 1895, 469.Family 139. **CHIROCENTRIDÆ**It is not certain that all of the genera named below belong to one family, or to the same family as the single living genus, *Chirocentrus*.

MONOPTEROS Volta, 1796, 169.

POLYPTEROLEPIS Steinla, 1868, 350.

Chirocentrus Cuvier, 1817, 99.

OÖLEPIS Steinla, 1868, 350.

SAUROCEPHALUS Harlan, 1824, 118.

AGRAMMATOLEPIS Steinla, 1868, 350.

SAURODON Hays, 1830, 136.

CROMMIOLEPIS Steinla, 1868, 350.

PLATINX Agassiz, 1835, 181.

CYCLOLEPIS Geinitz, 1868, 349.

Cælogaster Agassiz, 1835, 181.

HEMICYCLUS Geinitz, 1868, 350.

THRISOPTERUS Heckel, 1856, 270.

PTYCHOLEPIS Steinla, 1868, 350.

ANDREIOPLEURA Costa, 1865, 336.

HELIOLEPIS Steinla, 1868, 350.

HETEROLEPIS Costa, 1865, 336.

MIXOGRAMMATOLEPIS Steinla, 1868, 350.

TELEPHOLIS Marck & Schlüter, 1865, 339.

CHIROMYSTUS Cope, 1886, 434.

CREDEMNOLEPIS Steinla, 1868, 349.

EUBIODECTES Hay, 1903, 503.

Family 140. **ERYTHRINOLEPIDÆ****ERYTHRINOLEPIS** Cockerell, 1919, 566.Family 141. **PTEROTHRISSIDÆ** (*Bathythrissidæ*)**KYMATOPETALEPIS** (Steinla) Geinitz,
1868, 349.**Bathythrissa** Günther, 1877, 389.**Pterothrissus** Hilgendorf, 1877, 390.**SYNTEGMODUS** Loomis, 1900, 490.**CHICOLEPIS** Cockerell, 1919, 565.Family 142. **ICHTHYODECTIDÆ****HYPSONDON** Agassiz, 1887, 186, 219.**ICHTHYODECTES** Cope, 1870, 356.**CHIROCENTRITES** Heckel, 1849, 242.**XIPHACTINUS** Leidy, 1870, 358.**TOMOGNATHUS** Dixon, 1850, 246.**PRYMNETES** Cope, 1871, 360.**SPATHODACTYLUS** Pictet & Loriol, 1859,
292.**PORTHEUS** Cope, 1872, 364.**GILLICUS** Hay, 1898, 480.**ANDREIOPLEURA** Costa, 1865, 336.**PROPORTHEUS** Jackel, 1909, 533.

Family 143. SAURODONTIDÆ

SAUROCEPHALUS Harlan, 1824, 118.

DAPTINUS Cope, 1872, 364.

SAURODON Hays, 1830, 136.

Family 144. GONORHYNCHIDÆ

It is doubtful whether the extinct forms of this group (*Notogoneus*, *Charitostomus*) really belong to the same family as the living *Gonorhynchus*.

Gonorhynchus Gronow, 1763, 19.*Rhynchana* Richardson, 1844, 407.*Gonorhynchus* Scopoli, 1777, 42.

Family 145. NOTOGONEIDÆ

ANORMURUS Blainville, 1818, 171.

NOTOGONEUS¹²⁴ Cope, 1885, 430.

SPHENOLEPIS Agassiz, 1844, 218.

PROTOCATOSTOMUS Whitfield, 1890, 453.

SOLENOGNATHUS Pictet, 1866, 342.

GONORHYNCHOPS Cockerell, 1919, 566.

CHARITOSOMUS Marck, 1885, 433.

¹²⁴ Cockerell observes, in lit., May 13, 1922: "As to *Notogoneus*, I don't think it could be a characin. If not a gonorhynchid, then the type of a new family, *Notogoneidæ*. I suppose the *Gonorhynchid* type of scales, originating during the Mesozoic, may have persisted in several distinct branches of the original stem, of which our modern *Gonorhynchidæ* constitute one only. One of the other branches would be represented by *Notogoneus*. I think the resemblance is too close for convergence from entirely different stems."

The view expressed above implies that the Cretaceous *Gonorhynchops* and *Charitosomus* are probably not true *Gonorhynchidæ*, in the modern sense, but represent a family ancestral to the modern one. Whether such a family could be defined is another matter.

Family 146. HIODONTIDÆ

(Moon-fishes)

*Hiodon*¹²⁵ Le Sueur, 1818, 107.*Clodulus* Rafinesque, 1820, 111.*Glossodon* Rafinesque, 1818, 108.*Glossodon* Heckel, 1842, 211.*Amphiodon* Rafinesque, 1819, 110.*Elattonistius* Gill & Jordan, 1877, 390.

¹²⁵ Later more correctly written *Hyodon*.

Family 147. CLUPEIDÆ

(Herrings)

Clupea Linnæus, 1758, 15.*Trichis* (Plumier) Lacépède, 1803, 73.*Harengus* Geoffroy, 1767, 24.*Pristigaster* Cuvier, 1817, 99.*Harengus* Catesby, 1771, 31.*Pomolobus* Rafinesque, 1820, 111.*Harengus* Klein, 1775, 38.*Alosa*¹²⁶ Cuvier, 829, 130.*Alosa* Linck, 1790, 49.*Corica* Hamilton, 1822, 115.*Odontognathus* Lacépède, 1800, 56.*Raconda* Gray, 1831, 138.*Pomatias* Bloch & Schneider, 1801, 60.*Apterygia* Gray, 1833, 179.*Gnathobolus* B. & S., 1801, 60.*Apterogasterus* De La Pylaie, 1835, 184.*Opisotomus* (Commerson) Lacépède, 1803, 70.*Platygaster* Swainson, 1839, 203.*Ilisha* Gray, 1845, 227.

¹²⁶ Also written *Alosa*.

- Spratella** Cuvier & Valenciennes, 1847, 231.
Kowala Cuv. & Val., 1847, 231.
Clupeonia Cuv. & Val., 1847, 231.
Rogenia Cuv. & Val., 1847, 231.
Sardinella Cuv. & Val., 1847, 231.
Harengula Cuv. & Val., 1847, 231.
Alausa Cuv. & Val., 1847, 231.
Meletta Cuv. & Val., 1847, 231.
Pellona Cuv. & Val., 1847, 231.
Amblygaster Bleeker, 1849, 240.
HISTIURUS Costa, 1850, 245.
Clupeoides Bleeker, 1851, 247.
Dascillus Gronow, 1854, 259.
Clupeichthys Bleeker, 1855, 263.
Sardinia Poey, 1860, 299.
ALOSINA Wagner, 1860, 300.
Opisthopterus Gill, 1861, 303.
Alausella Gill, 1861, 303.
Opisthonema Gill, 1861, 303.
Brevoortia Gill, 1861, 303.
SCOMBROCLUPEA Kner, 1863, 327.
UROPTERINA Lioy, 1865, 338.
PTERICEPHALINA Lioy, 1865, 339.
PSEUDOBERYX Pictet & Humbert, 1866, 342.
Pellonula Günther, 1868, 351.
Chirocentrodon Günther, 1868, 351.
Paralosa Bleeker, 1872, 362.
SYLLÆMUS Cope, 1875, 379.
Clupeonella Kessler, 1877, 391.
DIPLOMYSTUS Cope, 1877, 388.
CLUPEOPS Sauvage, 1880, 402.
HACQUETIA¹⁹⁷ Szajnocha, 1886, 436.
Hyperlophus Ogilby, 1892, 459.
Lile Jordan & Evermann, 1896, 473.
Potamalosa Ogilby, 1896, 475.
Omochetus Ogilby, 1897, 477.
Odaxothrissa Boulenger, 1899, 485.
LEPTICHTHYS Stewart, 1899, 487.
HISTIOTHRISSE Woodward, 1901, 495.
HALECOPSIS (Agassiz) Woodward, (1844) 1901, 217, 218, 496.
Microthrissa Boulenger, 1902, 496.
LYROLEPIS Romanovskii, 1904, 510.
COPEICHTHYS Dollo, 1904, 507.
Sardina Antipa, 1905, 512.
KNIGHTIA Jordan, 1907, 525.
ELLIPES Jordan, 1910, 536.
DASTILBE Jordan, 1910, 536.
Heringia Fowler, 1911, 539.
Gudusia Fowler, 1911, 539.
Rhinosardinia Eigenmann, 1912, 543.
Clupeonella Berg, 1913, 546.
ELLIMMA Jordan, 1913, 548.
Zunasia Jordan & Metz, 1913, 548.
Caspialosa Berg, 1915, 555.
Paralosa Regan, 1916, 560.
Ethmalosa Regan, 1916, 560.
Hilsa Regan, 1916, 560.
Ethmidium Thompson, 1916, 561.
Pœcilothrissa Regan, 1917, 563.
Potamothrissa Regan, 1917, 563.
Cynothrissa Regan, 1917, 563.
Stolothrissa Regan, 1917, 563.
Limnothrissa Regan, 1917, 563.
IQUIUS Jordan, 1919, 568.
XYNE Jordan & Gilbert, 1919, 568.
ELLIMMICHTHYS Jordan, 1919, 568.
ALISEA J. & G., 1919, 568.
XYRINIUS J. & G., 1919, 569.
QUISQUE Jordan, 1920, 571.

¹⁹⁷ Not identifiable.

Family 148. **DUSSUMIERIIDÆ**

(Round Herrings)

- Stolephorus**¹⁹⁸ Lacépède, 1803, 67.
Dussumieria Cuvier & Valenciennes, 1847, 231.
Spratelloides Bleeker, 1851, 248.
Etrumeus Bleeker, 1853, 253.
Leptogaster Bleeker, 1872, 362.
Perkinsia Eigenmann, Rosa S., 1891, 454.
Jenkinsia Jordan & Evermann, 1896, 473.
RHOMURUS Jordan, 1919, 568.
SMITHITES Jordan & Gilbert, 1919, 568.
QUÆSITA J. & G., 1919, 568.
LYGISMA J. & G., 1919, 568.

¹⁹⁸ This application of this name is still uncertain. It originally included a species of *Dussumieriidæ* and one of *Engraulidæ*.

Family 149. **DOROSOMIDÆ**
(Gizzard Shads)

- | | |
|--|---|
| Clupanodon ¹³⁹ Lacépède, 1803, 68. | Signalosa Evermann & Kendall, 1898, 480. |
| Thrissa Rafinesque, 1815, 90. | |
| Dorosoma Rafinesque, 1820, 111. | Konosirus Jordan & Snyder, 1900, 490. |
| Gomostoma Van Hasselt, 1823, 172. | Nematalosa Regan, 1916, 560. |
| Chatoëssus Cuvier, 1829, 130. | Gonialosa Regan, 1916, 560. |
| Anodontostoma Bleeker, 1849, 241. | |

¹³⁹ The proper application of this name has been questioned. Apparently it should replace *Konosirus* among the *Dorosomidæ*.

Family 150. **ENGRAULIDÆ**
(Anchovies)

- | | |
|---|--|
| Menidia Browne, 1789, 46. | Stethochætus Gronow, 1854, 259. |
| Stolephorus ¹⁴⁰ Lacépède, 1803, 67. | Osteoglossum Basilewski, 1855, 262. |
| Encrasicholus (Commerson) Lacépède, 1803, 71. | Telara Günther, 1868, 351. |
| Mystus Lacépède, 1803, 67. | Cetengraulis Günther, 1868, 351. |
| Engraulis Cuvier, 1817, 98. | Pterengraulis Günther, 1868, 351. |
| Thrissa ¹⁴¹ Cuvier, 1817, 98. | Heterothrissa Günther, 1868, 351. |
| Encrasicholus Fleming, 1828, 122. | Lycengraulis Günther, 1868, 351. |
| Coilia Gray, 1831, 138. | Lycothrissa Günther, 1868, 351. |
| Trichosoma Swainson, 1839, 203. | Anchovia Jordan & Evermann, 1895, 468, 473. |
| Setipinna Swainson, 1839, 203. | Anchoviella Fowler, 1911, 539. |
| Chætomus McClelland, 1844, 220. | Thrissocles Jordan, 1917, 562. |
| Leptonurus Bleeker, 1849, 241. | |

¹⁴⁰ This genus is based on two species, belonging to different families. The final disposition of the name awaits decision.

¹⁴¹ Later written *Thryssa* by Cuvier.

Family 151. **ALEPOCEPHALIDÆ**

- | | |
|--|--|
| Triurus Lacépède, 1800, 56. | Narcetes Alcock, 1890, 449. |
| Pomatias Bloch & Schneider, 1801, 60. | Conocara Goode & Bean, 1895, 467. |
| Alepocephalus Risso, 1820, 113. | Talismania G. & B., 1895, 467. |
| Esunculus Kaup, 1856, 272. | Mitchillina Jordan & Evermann, 1896, 473. |
| Xenodermichthys Günther, 1878, 395. | Ericara Gill & Townsend, 1897, 477. |
| Bathytroctes Günther, 1878, 395. | Leptochilichthys ¹⁴² Garman, 1899. |
| Platytröctes Günther, 1878, 395. | Dolichopteryx Brauer, 1901, 492. |
| Aleposomus ¹⁴³ Gill, 1884. | Asquamiceps Zugmayer, 1911, 541. |
| Leptoderma Vaillant, 1886, 436, 444. | Xenognathus Gilbert, 1915, 556. |
| Anomalopterus Vaillant, 1886, 436, 444. | Benthosphyraena Cockerell, 1919, 566. |
| Aulostomatomorpha Alcock, 1890, 449. | Rouleina ¹⁴⁴ Jordan, 1923. |
| Tauredophidium Alcock, 1890, 449. | |

¹⁴² *Amer. Nat.*, 18: 433; type *Aleposomus copei* Gill; regarded as a synonym of *Xenodermichthys*. (Omitted in "Genera of Fishes.")

¹⁴³ "Deep Sea Fish," 284; orthotype *L. agassizii*. (Omitted in "Genera of Fishes.")

¹⁴⁴ New genus; type *Aleposomus güntheri* Alcock, same as *Aleposomus* Roule, not of Gill, which is a synonym of *Xenodermichthys* Günther.

Family 152. **MACRISTIIDÆ****Macristium** Regan, 1903, 505.Family 153. **PHRACTOLÆMIDÆ****Phractolæmus**¹⁴⁶ Boulenger, 1901.¹⁴⁶ Boulenger, *Proc. Zool. Soc. Lond.*, 3, 1901; type *P. ansorgi* Boulenger. (Omitted in "Genera of Fishes.")Family 154. **KNERIIDÆ****Kneria** Steindachner, 1866, 343.**Xenopomatischthys** Boulenger, 1910, 534.Family 155. **CROMERIIDÆ****Cromeria** Boulenger, 1901, 492.*Suborder* **OSTEOGLOSSOIDEA**Family 156. **OSTEOGLOSSIDÆ**

This family and the next two should perhaps be merged into one.

Osteoglossum (Vandelli) Cuvier, 1829, **DAPEDOGLOSSUS** Cope, 1877, 388.

131.

Platops Owen, 1901, 260.**Ischnosoma** Spix, 1829, 132.**BRYCHÆTUS** (Agassiz) Woodward, 1901, 224, 495.**CLADOCYCLUS**¹⁴⁷ Agassiz, 1841, 208.**Scleropages** Günther, 1864, 333.**Pomaphractus** (Agassiz) Woodward, (1845) 1901, 224.**PHAREODUS**¹⁴⁷ Leidy 1873, 370.¹⁴⁶ The original species of this genus from Brazil belongs certainly to or near the *Osteoglossidæ*, and is distinguished by the great development of intermuscular bones, attached to the occiput forming a brush three times as long as the head and extending backward along the sides, looking in the fossil example like the wing of a flying fish. Cockerell suggests that it may be an ancestral **characin**.¹⁴⁷ This name seems to me tenable; the description of the genus is included in that of the species, as with *Protamia* and *Hypania* of the same paper.Family 157. **ARAPAIMIDÆ****Sudis** Cuvier, 1817, 99.**Vastres** Cuvier & Valenciennes, 1846, 228.**Arapaima** Müller, 1843, 216, 229.Family 158. **CLUPISUDIDÆ** (*Heterotidæ*)**Clupisudis** Swainson, 1839, 202.**Helicobranchus** Hyrtl, 1854, 260.**Heterotis** (Ehrenberg) Müller, 1843, 131, 216, 229.Family 159. **PANTODONTIDÆ****Pantodon** Peters, 1877, 391.*Suborder* **NOTOPTEROIDEI**Family 160. **NOTOPTERIDÆ****Notopterus** Lacépède, 1800, 56.**Xenomystus** Günther, 1868, 351.**Glanis** Gronow, 1854, 259.

*Suborder SCYPHOPHORI*Family 161. **MORMYRIDÆ**

- | | |
|---|---------------------------------------|
| Mormyrus Linnæus, 1758, 15. | Gnathonemus Gill, 1862, 317. |
| Scorpiccephalus Swainson, 1839, 198. | Solenomormyrus Bleeker, 1874, 372. |
| Mormyrops Müller, 1843, 216. | Campylomormyrus Bleeker, 1874, 372. |
| Petrocephalus Marcusen, 1854, 334, 260. | Oxymormyrus Bleeker, 1874, 372. |
| Phagrus Marcusen, 1854, 334. | Stomatorhinus Boulenger, 1898, 478. |
| Marcusenius Gill, 1862, 314. | Myomyrus Boulenger, 1898, 479. |
| Mormyroides Gill, 1862, 314. | Genyomyrus Boulenger, 1898, 479. |
| Hyperopisus Gill, 1862, 314. | Hippopotamyrus Pappenheim, 1906, 520. |
| Isichthys Gill, 1862, 317. | |

Family 162. **GYMNARCHIDÆ**

- Gymnarchus* Cuvier, 1829, 131.

*Suborder SALMONOIDEI*Family 163. **SALMONIDÆ**

(Salmon; Trout)

The next three families are usually and perhaps properly united with *Salmonidæ*.

- | | |
|---|--|
| <i>Salmo</i> Linnæus, 1758, 14. | <i>Salar</i> Cuv. & Val., 1848, 233. |
| <i>Trutta</i> ¹⁴⁸ Linnæus, 1758, 14. | <i>Umbla</i> Rapp, 1854, 261. |
| <i>Trutta</i> Geoffroy, 1767, 24. | <i>Oncorhynchus</i> Suckley, 1860, 299. |
| <i>Trutta</i> Klein, 1775, 37. | <i>Hypsifario</i> Gill, 1862, 317. |
| <i>Salvelini</i> ¹⁴⁹ Nilsson, 1832, 140. | <i>Hucho</i> Günther, 1866, 340. |
| <i>Salvelinus</i> Richardson, 1836, 186. | <i>RHABDOFARIO</i> Cope, 1870, 356. |
| <i>Baione</i> Dekay, 1842, 210. | <i>Cristivomer</i> Gill & Jordan, 1878, 395. |
| <i>THAUMATURUS</i> Reuss, 1844, 222. | <i>Epitomynis</i> Schulze, 1889, 448. |
| <i>Fario</i> Cuvier & Valenciennes, 1848, 233. | <i>Phyllogephyra</i> Boulenger, 1898, 479. |

¹⁴⁸ This name with *Osmeri*, *Coregoni*, and *Characini* were given in plural form only by Linnæus.

¹⁴⁹ Given originally in plural form only, latinized by Richardson, 1836.

Family 164. **PLECOGLOSSIDÆ**

(Ayu)

- Plecoglossus* Temminck & Schlegel, 1846, 230.

Family 165. **COREGONIDÆ**

(White-fishes; Ciscoes)

- | | |
|---|---|
| <i>Coregoni</i> ¹⁵⁰ Linnæus, 1758, 14. | <i>Leucichthys</i> Dybowski, 1874, 375. |
| <i>Tripteronotus</i> Lacépède, 1803, 65. | <i>Allosomus</i> ¹⁵¹ Jordan, 1878. |
| <i>Coregonus</i> Lac., 1803, 66. | <i>Prosopium</i> Milner, 1878, 395. |
| <i>Stenodus</i> Richardson, 1836, 185. | <i>Cisco</i> Jordan & Evermann, 1911, 539. |
| <i>Argyrosomus</i> Agassiz, 1850, 245. | <i>Thrissomimus</i> Gill, 1911, 539. |
| <i>Brachymystax</i> Günther, 1866, 340. | <i>Irillion</i> Jordan, 1919, 567. |
| <i>Luciotrutta</i> Günther, 1866, 340. | <i>LEUCICHTHYOPS</i> Cockerell, 1919, 566. |

¹⁵⁰ Given in plural form only, as *Coregoni*.

¹⁵¹ *Man. Vert.*, Ed. 2, 361; type *Coregonus tullibee* Richardson. (Omitted in "Genera of Fishes.")

Family 166. THYMALLIDÆ

(Grayling)

- | | |
|--------------------------------------|---|
| Thymallus Linck, 1790, 49. | CYCLOLEPIS Geinitz, 1868, 349. |
| Thymallus Cuvier, 1829, 130. | PROTOTHYMALLUS Laube, 1901, 495. |
| Choregon Minding, 1832, 140. | Thymalloides Berg, 1908, 527. |
| Orthocolus Gistel, 1848, 237. | Salmothymus Berg, 1908, 527. |

Family 167. OSMERIDÆ

(Smelt)

A group scarcely distinct as a family from the *Argentinidæ*.

- | | |
|---|---|
| Osmeri ¹⁵³ Linnæus, 1758, 14. | Mesopus ¹⁵³ Gill, 1862, 313. |
| Osmerus Lacépède, 1803, 66. | Hypomesus Gill, 1862, 313. |
| Mallotus Cuvier, 1829, 130. | Spirinchus Jordan & Evermann, 1896, 473. |
| Eperlanus Gaimard, 1849, 249. | Therobromus Lucas, 1898, 482. |
| Eperlanus Basilewski, 1855, 262. | Eperlanio Jordan, 1919, 567. |
| Thaleichthys Girard, 1859, 290. | |

¹⁵³ In plural form only, as *Osmeri*.¹⁵³ A name left in type through failure to correct proof sheets.

Family 168. ARGENTINIDÆ

- | | |
|--|--|
| Argentina Linnæus, 1758, 15. | Glossanodon Guichenot, 1866, 341. |
| Silus Reinhardt, 1833, 179. | Leuroglossus Gilbert, 1890, 451. |
| Acantholepis Kröyer, 1846, 229. | |

Family 169. MICROSTOMIDÆ

- | | |
|-------------------------------------|---|
| Microstoma Cuvier, 1817, 99. | Nansenia Jordan & Evermann, 1896, 473. |
| Halaphya Günther, 1889, 447. | |

Family 170. BATHYLAGIDÆ

- | | |
|---------------------------------------|---|
| Bathylagus Günther, 1878, 395. | Bathymacrops Gilchrist, 1922. (See Index.) |
|---------------------------------------|---|

Family 171. RETROPINNIDÆ

(New Zealand White-bait)

- | | |
|------------------------------------|--|
| Retropinna Gill, 1862, 313. | Richardsonia Steindachner, 1866, 343. |
|------------------------------------|--|

Family 172. SALANGIDÆ

(Chinese White-bait)

- | | |
|-----------------------------------|--|
| Albula Osbeck, 1762, 17. | Salangichthys Bleeker, 1860, 293. |
| Salanx Cuvier, 1817, 99. | Parasalanx Regan, 1908, 530. |
| Leucosoma Gray, 1831, 139. | Hemisalanx Regan, 1908, 530. |

Family 173. GALAXIIDÆ

- | | |
|-----------------------------------|---|
| Galaxias Cuvier, 1817, 99. | Neochanna Günther, 1867, 345. |
| Mesites Jenyns, 1842, 212. | Austrocobitis Ogilby, 1899, 487. |

Family 174. APLOCHITONIDÆ

- | | |
|---|---|
| Aplochiton ¹⁵⁴ Jenyns, 1842, 212. | Prototroctes Günther, 1864, 333. |
| Farionella Cuvier & Valenciennes, 1849, 242. | Jenynsella Ogilby, 1908, 529. |
| | Lovettia McCulloch, 1915, 556. |

¹⁵⁴ Later spelled *Haplochiton*.

Suborder ENCHODONTOIDEI

Family 175. ENCHODONTIDÆ

Some of the genera named below have been referred, perhaps justly, to the *Dercetidæ*, a family which may be indeed closely related to the *Enchodontidæ*.

- | | |
|---|--|
| HALEC Agassiz, 1834, 180. | ARCHÆOGADUS Marck & Schlüter, 1865, 339. |
| ENCHODUS Agassiz, 1835, 181. | TETHEODUS Cope, 1874, 375. |
| ISODUS Heckel, 1849, 243. | TRICHIURIDES Winkler, 1878, 398. |
| SAURORHAMPHUS Heckel, 1850, 246. | SOLENOTODON Kramberger, 1881, 416. |
| POMOGNATHUS Dixon, 1850, 245. | HOLCODON Kramberger, 1885, 433. |
| EURYPHOLIS Pictet, 1850, 247. | PHYLACTOCEPHALUS Davis, 1885, 431. |
| PHASGANODUS Leidy, 1858, 283. | PANTOPHOLIS Davis, 1885, 431. |
| ISCHYROCEPHALUS von der Marck, 1858, 283. | EURYGNATHUS Davis, 1885, 431. |
| PALÆOLYCUS von der Marck, 1863, 327. | DIPNOLEPIS Fritsch, 1893, 461. |
| PLINTHOPHORUS Günther, 1864, 333. | HALECODON Cockerell, 1919, 566. |

Suborder STOMIATIOIDEI

We may apply this term to a group of isospondylous fishes, which for the most part retain the adipose fin and which have the side of the upper jaw formed by the maxillaries, differing in this regard strongly from the *Iniomi*, with which they have been usually associated. Most members of both groups are bathypelagic fishes, degenerate in many regards. The division into families as here accepted must be regarded as provisional.

Family 176. STOMIATIDÆ

- | | |
|-----------------------------------|---|
| Stomias Cuvier, 1817, 99. | Grammatostomias ¹⁵⁵ Goode & Bean, 1895, 468. |
| Echiostoma Lowe, 1843, 215. | Dactylostomias Garman, 1899, 486. |
| Stomianodon Bleeker, 1849, 241. | Macrostomias Brauer, 1902, 497. |
| Stomiasunculus Kaup, 1860, 297. | Melanostomias Brauer, 1902, 497. |
| Lucifer Döderlein, 1882, 418. | Leptostomias Gilbert, 1905, 513. |
| Bathyophilus Giglioli, 1883, 423. | Neostomias Gilchrist, 1906, 518. |
| Hyperchoristus Gill, 1883, 424. | Trichostomias Zugmayer, 1911, 541. |
| Eustomias Filhol, 1884, 427. | Nematostomias Zugmayer, 1911, 541. |
| Pachystomias Günther, 1887, 438. | Benthalbella Zugmayer, 1911, 541. |
| Opostomias Günther, 1887, 438. | Lamprotoxus Holt & Bryne, 1913, 548. |
| Photonectes Günther, 1887, 438. | Aristostomias Zugmayer, 1913, 552. |
| Eustomias Vaillant, 1888, 444. | Gnathostomias Pappenheim, 1914, 554. |
| Photostomias Collett, 1889, 444. | Zastomias Gilbert, 1915, 556. |
| Thaumastomias Alcock, 1890, 449. | |

¹⁵⁵ *Grammatostomias* Holt & Byrne, p. 536, should be canceled. *G. flagellibarba* Holt & Byrne is the type of *Lamprotoxus*, p. 548.

Family 177. TOMOGNATHIDÆ

TOMOGNATHUS Dixon, 1850, 246.

Family 178. **ASTRONESTHIDÆ**

Astronesthes Richardson, 1844, 222.
Phænodon Lowe, 1850, 247.

Bathylchnus Brauer, 1902, 497.
Borostomias Regan, 1908, 529.

Family 179. **STYLOPHTHALMIDÆ**

Stylophthalmus Brauer, 1906, 497, 517. *Stylophthalmoides* Sanzo, 1922. (See Index.)

Family 180. **CHAULIODONTIDÆ**

Vipera Catesby, 1771, 32.

Leptodes Swainson, 1839, 203.

Chauliodus Bloch & Schneider, 1801, 59.

Family 181. **GONOSTOMIDÆ**

Gonostoma Rafinesque, 1810, 83.

Yarella G. & B., 1895, 467.

*Phosichthys*¹⁵⁶ Hutton & Hector, 1872, 366.

Bonapartia G. & B., 1895, 467.

Manducus G. & B., 1895, 468.

Cyclothone Goode & Bean, 1882, 419.

Zaphotias G. & B., 1898, 482.

Sigmops Gill, 1883, 424.

Triplophos Brauer, 1902, 497.

Neostoma^{156a} Filhol, 1884, 427, 444.

AZALOIS Jordan & Gilbert, 1919, 568.

¹⁵⁶ Later written *Photichthys*.

^{156a} *Neostoma* Vaillant, p. 444, should be canceled.

Family 182. **IDIACANTHIDÆ**

Idiacanthus Peters, 1876, 386.

Bathypophis Günther, 1878, 394.

Family 183. **MAUROLICIDÆ**

Maurolicus Cocco, 1838, 191.

Valenciennellus J. & E., 1895, 468.

Ichthyococcus Bonaparte, 1840, 141, 206

Zalarges Jordan & Williams, 1895, 469.

Coccia Günther, 1864, 333.

Argyripnus Gilbert & Cramer, 1897, 477.

Diplophos Günther, 1873, 369.

Lychnopoles Garman, 1899, 486.

Vinciguerria Jordan & Evermann, 1895, 468.

Triareus Waite, 1910, 537.

Family 184. **OPISTHOPROCTIDÆ**

Opisthoproctus Vaillant, 1888, 443.

Winteria Brauer, 1901, 492.

Family 185. **STERNOPTYCHIDÆ**

*Sternoptix*¹⁵⁷ Hermann, 1781, 44.

Polyipnus Günther, 1887, 438.

Argyropelecus Cocco, 1829, 133.

Sternoptychides Ogilby, 1889, 448.

*Pleurothyris*¹⁵⁸ Lowe, 1843, 215.

Margrethia^{158a} Jespersen & Täning, 1919.

¹⁵⁷ Usually written *Sternoptyx*.

¹⁵⁸ Misprinted *Pleurothysis* by Günther.

^{158a} P. Jespersen and A. V. Täning. *Nat. Medd.*, 70: 222; orthotype *M. obtusirostris* J. & T.: Cadiz Bay.

Family 186. **ANOPTERIDÆ**

Anopterus Zugmayer, 1911, 541.

Order LYOPOMI

Family 187. HALOSAURIDÆ

- ECHIDNOCEPHALUS von der Marck, 1858, 283. Halosaurichthys Alcock, 1889, 444.
 Aldrovandia Goode & Bean, 1895, 468.
 Halosaurus Johnson, 1863, 327. Halosauropsis Collett, 1896, 471.
 ENCHELURUS von der Marck, 1863, 328.

Family 188. LIPOGENYIDÆ

- Lipogenys Goode & Bean, 1894, 465.

Order HETEROMI

Family 189. PRNOTACANTHIDÆ

- PRNOTACANTHUS Woodward, 1900, 491.

Family 190. NOTACANTHIDÆ

(Spiny-eels)

- Notacanthus Bloch, 1787, 44. Paradoxichthys Giglioli, 1882, 419.
 Campylodon Fabricius, 1793, 53. Teraticthys Giglioli, 1882, 419.
 Acanthonotus Bloch, 1797, 53. Gigliolia Goode & Bean, 1894, 465.
 Polyacanthonotus Bleeker, 1874, 372. Macdonaldia G. & B., 1894, 465.

Suborder HOPLOPLEURI

(Dercetiformes)

The relations of this extinct group are still obscure. Some have regarded them as allies of the *Enchodonts* among the *Isospondyli*. Others have placed them near the sticklebacks (*Gasterosteidæ*). Cockerell, who has the latest guess, places them with the *Heteromi*.

Family 191. DERCETIDÆ

- DERCETIS Agassiz, 1834, 180. ASPIDOPLEURUS Pickett & Humbert, 1866, 342.
 PRIONOLEPIS Egerton, 1850, 245.
 PALIMPHEMUS Heckel, 1862, 319. TRIENASPIS Cope, 1878, 394.
 PELARGORHYNCHUS von der Marck, 1858, 283. LEPTECODON Williston, 1899, 488.
 LEPTOTRACHELUS von der Marck, 1863, 328. APATEOPHOLIS Woodward, 1890, 453.

Family 192. STRATODONTIDÆ

- CIMOLICHTHYS Leidy, 1856, 273. EMPO Cope, 1872, 364.
 STRATODUS Cope, 1872, 364.

Family 193. RHINELLIDÆ

- RHINELLUS Agassiz, 1844, 217. ICHTHYOTRINGA Cope, 1878, 394.

Order SYMBRANCHIA

Eel-like fishes of tropical rivers and swamps, having distinct maxillary and premaxillary, the latter forming the border of the jaw; apparently not related to the true eels.

*Suborder ICHTHYOCEPHALI*Family 194. **FLUTIDÆ** (*Monopteridæ*)*Les Monoptères* Lacépède, 1800, 56.*Ophicardia* McClelland, 1844, 220.*Fluta* Bloch & Schneider, 1801, 60.*Apterigia* Basilewski, 1855, 262.*Monopterus* (Lacépède) Duméril 1806, 56.*Suborder HOLOSTOMI*Family 195. **SYNBRANCHIDÆ***Synbranchus*¹⁰⁰ Bloch, 1795, 53.*Ophisternon* McClelland, 1844, 220.*Typhlobranchus* Bloch & Schneider,
1801, 60.*Tetrabranchus* Bleeker, 1851, 248.*Unipertura* Kaup, 1856, 268.*Unibranchapertura* Lacépède, 1803, 68.*Macrotrema* Regan, 1912, 545.¹⁰⁰ Usually corrected to *Symbranchus*.Family 196. **AMPHIPNOIDÆ***Amphipnous* Müller, 1839, 196.*Pneumabranchus* McClelland, 1844, 220.*Ophichthys* Swainson, 1839, 205.*Suborder ALABIFORMES*Family 197. **ALABIDÆ***Alabes* (Cuvier) Oken, 1817, 101.*Cheilobranchus* Richardson, 1844, 223.**Order OPISTHOMI**

Eel-shaped fishes, with dorsal spines and with the shoulder girdle attached behind the occiput as in the *Heteromi*.

Family 198. **CHAUDHURIIDÆ***Chaudhuria* Annandale, 1918, 563.Family 199. **MASTACEMBELIDÆ***Mastacembelus* Gronow, 1763, 21.*Rhynchobdella* Bloch & Schneider, 1801,
59.*Mastacembelus* Scopoli, 1777, 42.*Pararhynchobdella* Bleeker, 1874, 372.*Macrogathus* Lacépède, 1800, 56.**Order APODES***Suborder CARENCHELI*

As these eel-shaped fishes have a distinct maxillary and premaxillary, it is very doubtful whether their place is among or even near the eels.

Family 200. **DERICHTHYIDÆ***Derichthys* Gill, 1884, 428.*Suborder ARCHENCHELI*

Eel-like forms with well developed ventral fins. It is doubtful whether these fishes are really to be placed among the eels.

Family 201. **ANGUILLAVIDÆ***Anguillavus* Hay, 1903, 503.Suborder **ENCHELYCEPHALI**Series **ANGUILLOIDEI**

Body with rudimentary scales; eggs minute.

Family 202. **ANGUILLIDÆ**

(True Eels)

Anguilla Shaw, 1803, 73.*Tribranchus* Peters, 1844, 407.Family 203. **SIMENCHELYIDÆ***Simenchelys*¹⁰⁰ (Gill) Goode & Bean,
1879.*Conchognathus* Collett, 1889, 444.*Gymnosimenchelys* Tanaka, 1908, 531.¹⁰⁰ *Bull. Essex Inst.*, 27; orthotype *Simenchelys parasilicus* Gill. (Omitted in "Genera of Fishes.")Family 204. **SYNAPHOBRANCHIDÆ***Synaphobranchus* Johnson, 1862, 319.*Nettophichthys* Holt, 1891, 455.*Histiobranchus* Gill, 1883, 424.Family 205. **ILYOPHIDÆ***Ilyophis* Gilbert, 1891, 454.Series **CONGROIDEI**

Body scaleless; eggs large.

Family 206. **DYSOMMIDÆ***Dysomma* Alcock, 1889, 444.*Dysommopsis* Alcock, 1891, 454.Family 207. **XENOCONGRIDÆ***Xenoconger* Regan, 1912, 545.Family 208. **MYROCONGRIDÆ***Myroconger* Günther, 1870, 357.Family 209. **MURÆNESOCIDÆ***Murænesox* McClelland, 1844, 220.*Brachyconger* Bleeker, 1865, 335.*Cynoponticus* Costa, 1846, 228.*Congresox* Gill, 1890, 451.Family 210. **SAUROMURÆNESOCIDÆ***Sauromurænesox* Alcock, 1889, 444.Family 211. **CONGRIDÆ**¹⁰¹ (*Leptocephalidæ*)

(Conger Eels)

Leptocephalus Gronow, 1763, 22.*Conger* (Cuvier) Oken, 1817, 101.*Conger* Klein, 1775, 37.*Ariosoma* Swainson, 1838, 193, 198.*Leptocephalus* Scopoli, 1777, 41 (22).*Ophisoma* Swainson, 1839, 205.*Oxyurus* Rafinesque, 1810, 79.

Congrus Richardson, 1844, 223.
Helmichthys Costa, 1854, 256.
Leptocephalichthys Bleeker, 1856, 267.
Hyoprorus K  lliker, 1853, 254.
Uroconger Kaup, 1856, 272.
Congermur  na Kaup, 1856, 272.
Congerodon Kaup, 1856, 271, 237.
Neoconger Girard, 1859, 291.
Hoplunnis Kaup, 1860, 297.
Gnathophis Kaup, 1860, 297.
Isognatha (Dekay) Gill, 1861, 303.
Diaphanichthys Peters, 1864, 334.
Oxyconger Bleeker, 1865, 335.
P  cilogconger G  nther, 1871, 361.
Coloconger Alcock, 1889, 444.
Promyllantor Alcock, 1890, 449.

Xenomystax Gilbert, 1891, 454.
Euleptocephalus Str  mman, 1895, 470.
Todarus Grassi & Calandruccio, 1896, 471.
Scolenchelys Ogilby, 1897, 477.
Bathycongrus Ogilby, 1898, 483.
Congrellus Ogilby, 1898, 483.
Atopichthys Garman, 1899, 486.
Congrosoma Garman, 1899, 486.
Veternio Snyder, 1904, 511.
Metopomycter Gilbert, 1905, 513.
Microconger Fowler, 1912, 543.
Mayerina Silvester, 1915, 557.
Pseudopichthys Roule, 1915, 557.
Rhechias¹⁶¹ Jordan, 1921.
Brachyconger^{162a} Regan, 1922.
Endeconger^{162b} Jordan, 1923.

¹⁶¹ Usually called *Congrid  *; *Leptocephalus*, an earlier name than *Conger*, is the larval form of *Conger*, but the name has been long used for larval eels in general.

¹⁶² *Proc. U. S. Nat. Mus.*, 59: 644; orthotype *R. armiger* Jordan.

^{162a} Two new fishes from New Britain and Japan: *Ann. Mag. Nat. Hist.* X. 217; orthotype *B. platyrhynchus*, Regan; not of Bleeker, 1865.

^{162b} New name for *Brachyconger*, preoccupied.

Family 212. NETTASTOMID  

(Duck-bill Eels)

Nettastoma Rafinesque, 1810, 81.
Chlopsis Rafinesque, 1810, 82.
Saurenychelys Peters, 1864, 334.

Nettastomops Steindachner, 1906, 521.
Nettastomella Facciola, 1914, 353.
Venefica Jordan & Davis, 1892, 458.

Family 213. HETEROCONGRID  

Heteroconger Bleeker, 1868, 348.

T  niconger¹⁶³ Herre, 1923.

¹⁶³ Herre, "Preliminary Account of Philippine Eels" (in press); body ribbon-like, the depth eighty-six times in length; pectorals present.

Family 214. ENCHELIID  

ENCHELION Hay, 1903, 503.

Family 215. URENCHELYID  

URENCHELYS Woodward, 1900, 491.

Family 216. ECHELID   (*Myrid  *)

Echelus Rafinesque, 1810, 81.
ENCHELYOPUS Agassiz, 1844, 181, 218.
Myrophis L  tken, 1851, 249.
Chilorhinus L  tken, 1851, 249.
Mur  nichthys Bleeker, 1853, 252.
Myrus Kaup, 1856, 271.
PARANGUILLA Bleeker, 1865, 335.
Paramyrus G  nther, 1870, 357.
Holopterura Cope, 1871, 361.
Bathymyrus Alcock, 1890, 450.

Ahlia Jordan & Davis, 1892, 458.
Verma Jordan & Evermann, 1896, 473.
Myropterura Ogilby, 1897, 477.
EOMYRUS Storms, 1898, 484.
RHYNCHORHINUS (Agassiz) Woodward, 1901, 219, 496.
EOMYRUS (Agassiz) Eastman, 1905, 512.
MYLOMYRUS Woodward, 1910, 537.
Garmannichthys Seale, 1917, 563.

Family 217. **NEMICHTHYIDÆ**

(Thread Eels)

- | | |
|-------------------------------------|---------------------------------------|
| Nemichthys Richardson, 1848, 240. | Gavialiceps Alcock, 1889, 444. |
| Leptorhynchus Lowe, 1852, 251. | Avocettina Jordan & Davis, 1892, 458. |
| Belonopsis Brandt, 1854, 256. | Nematoprora Gilbert, 1905, 513. |
| Labichthys Gill & Ryder, 1883, 424. | Stemonidium Gilbert, 1905, 513. |
| Spinivomer G. & R., 1883, 424. | Ceromitus Weber, 1913, 551. |
| Serrivomer G. & R., 1883, 424. | |

Family 218. **CYEMIDÆ****Cyema** Günther, 1878, 395.Family 219. **OPHICHTHYIDÆ**

(Snake Eels)

- | | |
|---|--|
| Ophichthus ¹⁶⁴ Ahl, 1787, 45. | Microdonophis Kaup, 1856, 271. |
| Cœcula Vahl, 1794, 52. | Cœcilophis Kaup, 1856, 271. |
| Sphagebranchus Bloch, 1795, 53. | Herpetoichthys Kaup, 1856, 271. |
| Ophisurus Lacépède, 1800, 56. | Elapsopsis Kaup, 1856, 271. |
| Cæcilia Lacépède, 1800, 56. | Brachysomophis Kaup, 1856, 271. |
| Colubrina ¹⁶⁵ Lacépède, 1803, 65. | Mystriophis Kaup, 1856, 271. |
| Apterichthys Duméril, 1806, 75. | Murænopsis ^{165b} Kaup, 1856, 271. |
| Oxystomus Rafinesque, 1810, 83. | Echiopsis Kaup, 1856, 271, 297. |
| Dalophis Rafinesque, 1810, 81. | Scytalophis Kaup, 1856, 271. |
| Cogrus Rafinesque, 1810, 81. | Leptorhinophis Kaup, 1856, 271. |
| Pterurus Rafinesque, 1810, 82. | Lamnostoma Kaup, 1856, 271. |
| Helmictis Rafinesque, 1810, 83. | Pisodonophis ¹⁶⁶ Kaup, 1856, 271. |
| Typhlotes Fischer, 1813, 83. | Ophisurapus Kaup, 1856, 271. |
| Branderius Rafinesque, 1815, 92. | Cirrhimuræna Kaup, 1856, 271. |
| Leptognathus Swainson, 1839, 205. | Callechelys Kaup, 1856, 271. |
| Ophisternon McClelland, 1844, 220. | Anguisurus Kaup, 1856, 271. |
| Ptyobbranchus McClelland, 1844, 220. | Myrichthys Girard, 1859, 290. |
| Ophithorax McClelland, 1844, 220. | Crotalopsis ¹⁶⁷ Kaup, 1860, 297. |
| Leptorhynchus ^{165a} Smith, 1847, 244. | Cryptopterus Kaup, 1860, 297. |
| Anepistomon Gistel, 1848, 236. | Achirophichthys Bleeker, 1865, 335. |
| Stethopterus Bleeker, 1853, 252. | Uranichthys Poey, 1867, 347. |
| Leiuranus Bleeker, 1853, 253. | Macrodonophis Poey, 1867, 347. |
| Leiurus Kaup, 1856, 268. | Letharchus Goode & Bean, 1882, 419. |
| Scytallurus Kaup, 1856, 268. | Bascanichthys Jordan & Davis, 1892, 456. |
| Centrurophis Kaup, 1856, 271. | Quassiremus J. & D., 1892, 458. |
| Pœcilocephalus Kaup, 1856, 271. | Scytalichthys J. & D., 1892, 458. |

¹⁶⁴ Usually written *Ophichthys*.¹⁶⁵ Probably fictitious; eel-shaped, long-nosed, with snake-like scales on head; abdominal ventrals, no dorsal; tail forked.^{165a} *Leptorhynchus* must be prior to its substitute *Anepistomon*.^{165b} *Murænopsis* as used by Kaup is a simple misprint for *Murænophis*.¹⁶⁶ Written also *Pisoodontophis*.¹⁶⁷ Misprinted *Crotalopsis* in "Genera of Fishes."

Xyrias Jordan & Snyder, 1901, 494.
Chlevastes J. & S., 1901, 494.
Jenkinsiella Jordan & Evermann, 1905,
 576.

Hemerorhinus Weber & Beaufort, 1916,
 561.
Omochelys¹⁶⁸ Fowler, 1918.
Syletor Jordan, 1919, 567.
Acanthenchelys^{168a} Regan, 1922.

¹⁶⁸ *Proc. Acad. Nat. Sci. Phila.*, 8, 1818; orthotype *Pisodonophis cruentifer* Goode & Bean. Same as *Syletor* Jordan, 1920; preoccupied in beetles (*Syletor* Tchitcherine, 1899).

^{168a} "A new Eel from Tobago." *Ann. Mag. Nat. Hist.* X. 296; orthotype *A. spinicauda* Regan.

Family 220. NEENCHELYIDÆ

Neenchelys Bamber, 1915, 555.

Family 221. MORINGUIDÆ

Rataboura Gray, 1831, 138.
Moringua Gray, 1831, 138.
Pterurus Swainson, 1839, 205.
Pachyurus Swainson, 1839, 205.
Ptyobranchus McClelland, 1844, 220.
Aphthalmichthys Kaup, 1856, 272.

Pseudomoringua Bleeker, 1865, 335.
Stilbiscus Jordan & Bollman, 1888, 442.
Gordiichthys Jordan & Davis, 1892, 458.
Cryptophthalmus Franz, 1910, 535.
Unagius Jordan, 1919, 567.

Suborder COLOCEPHALI

Family 222. HETERENCHELYIDÆ

Heterenchelys Regan, 1912, 545.

Panturichthys Pellegrin, 1913, 549.

Family 223. MURÆNIDÆ

(Morays)

Muræna Linnæus, 1758, 11.
Echidna Forster, 1777, 42.
Gymnothorax Bloch, 1795, 53.
Murænophis Cuvier, 1798, 54.
Murænophis Lacépède, 1803, 68.
Gymnomuræna Lacépède, 1803, 68.
Megaderus Rafinesque, 1815, 92.
Gymnopsis Rafinesque, 1815, 92.
Haliophis Rüppell, 1828, 122.
Ichthyophis Lesson, 1828, 123.
Uropterygius Rüppell, 1835, 184.
Strophidon McClelland, 1844, 220, 574.
Lycodontis McClelland, 1844, 220.
Thærodontis McClelland, 1844, 220.
Channo-Muræna Richardson, 1844, 223.
*Molarii*¹⁶⁹ Richardson, 1844, 223.
Ichthyapus Brisout de Barneville, 1847,
 231.

Enchelynassa Kaup, 1855, 265, 271.
Enchelycotte Kaup, 1856, 268.
Eurymyctera Kaup, 1856, 271.
Siderea Kaup, 1856, 271.
Enchelycore Kaup, 1856, 271.
Thyrsoidea Kaup, 1856, 271.
Limamuræna Kaup, 1856, 271.
Polyuranodon Kaup, 1856, 272.
Pœcilophis Kaup, 1856, 272.
Murænoblenna Kaup, 1856, 272.
Neomuræna Girard, 1859, 291.
Priodonophis Kaup, 1860, 297.
Tæniophis Kaup, 1860, 297.
Pseudomuræna Johnson, 1862, 319.
Pseudechidna Bleeker, 1863, 322.
Pythonichthys Poey, 1867, 347.
Rhinomuræna Garman, 1888, 441.
Rabula Jordan & Davis, 1892, 458.

¹⁶⁹ In plural form only.

Scutica Jordan & Evermann, 1896, 473.
Æmasia Jordan & Snyder, 1901, 494.
Scuticaria J. & S., 1901, 494.
Evenchelys Jordan & Evermann, 1902,
 498.

Anarchias Jordan & Seale, 1906, 519.
Rhabdura Ogilby, 1907, 526.
Rhinechidna Barbour, 1908, 527.
Ahynnodontophis Fowler, 1912, 543.
*DEPRANDUS*¹⁷⁰ Jordan & J. Z. Gilbert, 1921.

¹⁷⁰ "Fish Fauna California Tertiary," 252; orthotype *D. lestes* Jordan & Gilbert.

Suborder LYOMERI

Family 224. SACCOPHARYNGIDÆ (Gulpers)

Saccopharynx Mitchell, 1824, 117. *Ophiognathus* Harwood, 1827, 121.

Family 225. EURYPHARYNGIDÆ (Swallowers)

According to Dr. Roule, the nominal genera of this group are all identical with *Eurypharynx*.

Eurypharynx Vaillant, 1882, 421. *Megalopharynx* Brauer, 1900, 489.
Gastrostomus Gill & Ryder, 1883, 424. *Macropharynx* Brauer, 1902, 497.

Series OSTARIOPHYSI (Plectospondyli)

Order HETEROGNATHI

Family 226. CHARACINIDÆ (*Characidae*) (Characins)

Some of the genera named below are perhaps referable to other families.

*Characinus*¹⁷¹ Linnæus, 1758, 14.
Charax Gronow, 1763, 21.
Erythrinus Gronow, 1763, 21.
Charax (Gronow) Scopoli, 1777, 42.
Erythrinus (Gronow) Scopoli, 1777, 42.
*Serrasalmus*¹⁷² Lacépède, 1803, 66.
Characinus Lacépède, 1803, 66.
Tetragonopterus Cuvier, 1815, 93.
Myletes Cuvier, 1815, 93.
Chalceus Cuvier, 1817, 96.
Hydrocyon Cuvier, 1817, 96.
Characinus Cuvier, 1817, 98.
*Piabucus*¹⁷³ (Cuvier) Oken, 1817, 98.
Erythrinus Agassiz, 1829, 173.
Salminus Agassiz, 1829, 132.

Xiphorhynchus Agassiz, 1829, 132.
Schizodon Agassiz, 1829, 132.
*Cynodon*¹⁷⁴ Spix, 1829, 132.
Rhaphiodon Agassiz, 1829, 132.
Erythrichthys Bonaparte, 1833, 175.
Macrodon Müller, 1843, 216.
Myleus Müller & Troschel, 1844, 221.
Alestes M. & T., 1844, 221.
Catoprion M. & T., 1844, 221.
Pygocentrus M. & T., 1844, 221.
Pygopristis M. & T., 1844, 221.
Epicyrthus M. & T., 1844, 221.
Xiphorhamphus M. & T., 1844, 221.
Hydrolycus M. & T., 1844, 221.
Brycon M. & T., 1844, 221.

¹⁷¹ In plural form only, as *Characini*.

¹⁷² Written *Serrasalmo* by Cuvier.

¹⁷³ Written *Piabuca* by authors.

¹⁷⁴ The dates of birth and death of Spix are incorrectly given in "Genera of Fishes," p. 173; read 1781-1826.

- Exodon** M. & T., 1844, 221.
Cnidon M. & T., 1845, 227.
Agoniates M. & T., 1845, 227.
Grundulus Cuvier & Valenciennes, 1846, 228.
Lebiasina Cuv. & Val., 1846, 229.
Pyrrhulina Cuv. & Val., 1846, 229.
Hydropardus Reinhardt, 1849, 244.
Cynopotamus Cuvier & Valenciennes, 1849, 242.
Chalcinus Cuv. & Val., 1849, 242.
Mylesinus Cuv. & Val., 1849, 242.
Tometes Cuv. & Val., 1849, 242.
Piabucina Cuv. & Val., 1849, 242.
Brycinus Cuv. & Val., 1849, 242.
Astyanax Baird & Girard, 1854, 255.
Cheirodon¹⁷⁵ Girard, 1854, 258.
Stevardia Gill, 1858, 281.
Corynopoma Gill, 1858, 281.
Nematopoma Gill, 1858, 281.
Pæcilurichthys Gill, 1858, 281.
Hemigrammus Gill, 1858, 281.
Bryconops Kner, 1859, 292.
Pseudochalceus¹⁷⁶ Kner, 1863, 327.
Chalcinopsis¹⁷⁷ Kner, 1863, 337.
Crenuchus Günther, 1863, 326.
Brachyalestes Günther, 1864, 333.
Hetererythrinus Günther, 1864, 332.
Hemibrycon Günther, 1864, 333.
Scissor Günther, 1864, 333.
Creatochanes Günther, 1864, 333.
Creagrutus Günther, 1864, 333.
Anacyrtus Günther, 1864, 333.
Ræstes Günther, 1864, 333.
Ræboides Günther, 1864, 333.
Hystericodon Günther, 1864, 333.
Sarcodaces Günther, 1864, 333.
Oligosarcus Günther, 1864, 333.
Psalidostoma¹⁷⁸ Kner, 1864, 338.
Piabina Reinhardt, 1866, 343.
Aphyocharax Günther, 1868, 351.
Megalobrycon Günther, 1869, 504.
Holotaxis Cope, 1870, 356.
Odontostilbe Cope, 1870, 356.
Stethapriorion Cope, 1870, 356.
Plethodectes Cope, 1870, 356.
Proporthus Cope, 1872, 363.
Triporthus Cope, 1872, 363.
Iguanodectes Cope, 1872, 363.
Bryconæthiops Günther, 1873, 369.
Paragoniates Steindachner, 1876, 387.
Lutkenia Steindachner, 1876, 387.
Metynnis Cope, 1878, 394.
Bramocharax Gill, 1877, 389.
Leptogoniates Boulenger, 1887, 437.
Henochilus Garman, 1890, 451.
Pseudocorynopoma Perugia, 1891, 455.
Chalcinopelecus Holmberg, 1891, 455.
Bergia Steindachner, 1891, 456.
Brachychalcinus Boulenger, 1892, 457.
Asiphonichthys Cope, 1894, 464.
Diapoma Cope, 1894, 464.
Petersius Hilgendorf, 1894, 465.
Myloplus Gill, 1895, 467.
Hoplerythrinus Gill, 1895, 467.
Micralestes Boulenger, 1899, 485.
Neoborus Boulenger, 1899, 485.
Catabasis Eigenmann & Norris, 1900, 489.
Orthomyleus Eigenmann, 1903, 502.
Colossoma Eigenmann, 1903, 502.
Mylossoma Eigenmann, 1903, 502.
Boulengerella Eigenmann, 1903, 502.
Acnodon Eigenmann, 1903, 502.
Myleocollops Eigenmann, 1903, 502.
Gilbertella Eigenmann, 1903, 502.
Evermannella Eigenmann, 1903, 502.
Acestrocephalus Eigenmann, 1903, 502.
Holoshesthes¹⁷⁹ Eigenmann, 1903, 502.
Mœnkhausia Eigenmann, 1903, 502.
Markiana Eigenmann, 1903, 502.
Othonophanes Eigenmann, 1903, 502.
Holoprion Eigenmann, 1903, 502.
Holopristis Eigenmann, 1903, 502.
Stichonodon Eigenmann, 1903, 502.
Bryconodon Eigenmann, 1903, 502.
Acestrorhynchus Eigenmann, 1903, 502.
Piaractus Eigenmann, 1903, 502.

¹⁷⁵ Often corrected to *Chirodon*.

¹⁷⁶ This name first appears in *Sitzb. Acad. Wiss. München*, 226, 1863.

¹⁷⁷ Kner, *Sitzb. Acad. Wiss. München*, 225, 1863.

¹⁷⁸ First published in 1864.

¹⁷⁹ Later written, more correctly, *Holesthes*.

- Acestrorhamphus** Eigenmann, 1903, 502.
Gymnocharacinus Steindachner, 1903, 506.
Hoplias Gill, 1903, 503.
Eucynopotamus Fowler, 1904, 507.
Copeina Fowler, 1906, 518.
Ophiocephalops Fowler, 1906, 518.
Cyphocharax Fowler, 1906, 518.
Steindachnerina Fowler, 1906, 518.
Peltapleura Fowler, 1906, 518.
Phoxinopsis Regan, 1907, 526.
Mimagoniates Regan, 1907, 526.
Ctenocharax Regan, 1907, 526.
EOBRYCON Jordan, 1907, 525.
Pellegrinina Fowler, 1907, 523.
Coscinoxyron Fowler, 1907, 523.
Cynocharax Fowler, 1907, 523.
Cyrtocharax Fowler, 1907, 523.
Sphyrænocharax Fowler, 1907, 523.
Belonocharax Fowler, 1907, 523.
Waiteina Fowler, 1907, 523.
Reganina Fowler, 1907, 523.
Starksina Fowler, 1907, 523.
Sealeina Fowler, 1907, 523.
Bryconamericus Eigenmann, 1907, 522.
Gilbertolus Eigenmann, 1907, 522.
Evermannolus Eigenmann, 1907, 522.
Phenacogrammus Eigenmann, 1907, 522.
Phenacogaster Eigenmann, 1907, 522.
Thayeria Eigenmann, 1907, 527.
Deuterodon Eigenmann, 1907, 522.
Astyacinus Eigenmann, 1907, 522.
Fowlerina Eigenmann, 1907, 522.
Joinvillea Steindachner, 1908, 531.
Pristella Eigenmann, 1908, 528.
Poptella Eigenmann, 1908, 528.
Psellogrammus Eigenmann, 1908, 528.
Thayeria Eigenmann, 1908, 527.
Ctenobrycon Eigenmann, 1908, 527.
Cœlurichthys Ribeiro, 1908, 530.
Gymnocorymbus Eigenmann, 1908, 527.
Brycochandus Eigenmann, 1908, 528.
Hyphessobrycon Eigenmann, 1908, 528.
Champsoborus Boulenger, 1909, 531.
Dermatocheir Durbin, 1909, 532.
Triurobrycon Eigenmann, 1909, 532.
Holobrycon Eigenmann, 1909, 532.
Pterodiscus Eigenmann, 1909, 532.
Pœcilocharax Eigenmann, 1909, 533.
Hollandichthys Eigenmann, 1910, 535.
Rhoadsia Fowler, 1911, 539.
Probolodus Eigenmann, 1911, 538.
Psolidodon Eigenmann, 1911, 538.
Spintherobolus Eigenmann, 1911, 538.
Glandulocauda Eigenmann, 1911, 538.
Vesicatrux Eigenmann, 1911, 538.
Hysteronotus Eigenmann, 1911, 538.
Nematobrycon Eigenmann, 1911, 538.
Hasemania Ellis, 1911, 538.
Apodastyanax Fowler, 1911, 539.
Knodus Eigenmann, 1911, 538.
Genycharax Eigenmann, 1912, 543.
Gephyrocharax Eigenmann, 1912, 543.
Acanthocharax Eigenmann, 1912, 543.
Heterocharax Eigenmann, 1912, 543.
Aphyodite Eigenmann, 1912, 542.
Tylobranchius Eigenmann, 1912, 542.
Bivibranchia Eigenmann, 1912, 542.
Parastremma Eigenmann, 1912, 543.
Tytttocharax Fowler, 1913, 548.
Apistogramma Regan, 1913, 550.
Xenurocharax Regan, 1913, 550.
Ephippicharax Fowler, 1913, 548.
Gnathocharax Fowler, 1913, 548.
Pterobrycon Eigenmann, 1913, 547.
Prionobrama Fowler, 1913, 548.
Argopleura Eigenmann, 1913, 547.
Microgenys Eigenmann, 1913, 547.
Zygogaster Eigenmann, 1913, 547.
Ceratobranchia Eigenmann, 1914, 553.
Phanagoniates Eigenmann & Henn, 1914, 553.
Landonia E. & H., 1914, 553.
Parecbasis Eigenmann, 1914, 553.
Bleptonema Eigenmann, 1914, 553.
Microbrycon Eigenmann, 1914, 553.
Xiphocharax Fowler, 1914, 553.
Carlia Meek, 1914, 554.
Gastropristis Eigenmann, 1915, 556.
Rooseveltiella Eigenmann, 1915, 556.
Pristobrycon Eigenmann, 1915, 556.
Mixobrycon Eigenmann, 1915, 556.
Compsura Eigenmann, 1915, 556.
Aphyocheiroidon Eigenmann, 1915, 556.
Oligobrycon Eigenmann, 1915, 555.
Microschemobrycon Eigenmann, 1915, 555.
Megalampodius Eigenmann, 1915, 555.

- Macropsobrycon** Eigenmann, 1915, 555. **Entomolepis** Eigenmann, 1917, 561.
Leptobrycon Eigenmann, 1915, 555. **Bertoniolus**¹⁸⁰ Fowler, 1918.
Æquidens Steindachner, 1915, 558. **CHARACILEPIS** Cockerell, 1920, 570.
Pseudocheirodon Meek & Hildebrand, 1916, 559. **Phenacobrycon**¹⁸¹ Eigenmann, 1920.

¹⁸⁰ "A New Characin from Paraguay," *Proc. Acad. Nat. Sci. Phila.*, 141, 1918; orthotype *B. paraguayensis* Fowler.

¹⁸¹ Eigenmann, *Indiana University Studies*, 45: 18; orthotype *Bryconamericus henni* Eigenmann.

Family 227. GASTEROPELECIDÆ

- Gasteropelecus** Gronow, 1763, 22. **Thoracocharax** Fowler, 1907, 523.
Gasteropelecus Pallas, 1769, 22. **Carnegiella** Eigenmann, 1909, 532.

Family 228. XIPHOSTOMIDÆ

- Xiphostoma** Agassiz, 1829, 132. **Luciocharax** Steindachner, 1876, 387.
Ctenolucius Gill, 1861, 302.

Family 229. ANOSTOMIDÆ (*Curimatidæ*: *Anodontidæ*)

- Anostomos** Gronow, 1763, 20. **Curimatopsis** Steindachner, 1876, 387.
Anostomus (Gronow) Scopoli, 1777, 42. **Elopomorphus** Gill, 1878, 394.
Curimata Walbaum, 1792, 50. **Potamorhina** Cope, 1878, 394.
Anostomus (Gronow) Cuvier, 1817, 98. **Psectrogaster** Eigenmann & Eigenmann, 1889, 445.
Curimatus (Cuvier) Oken, 1817, 98. **Curimatella**^{181a} E. & E., 1889, 446.
Leporinus Spix, 1829, 132. **Semitapicis** E. & E., 1889, 446.
Prochilodus Agassiz, 1829, 132. **Schizodontopsis** Garman, 1890, 451.
Pacu Spix, 1829, 132. **Lahiliella** Eigenmann, 1903, 502.
Anodus Spix, 1829, 132. **Pithecocharax** Fowler, 1906, 518.
Mormyrhynchus Swainson, 1839, 203. **Chilomyzon** Fowler, 1906, 518.
Chilodus Müller & Troschel, 1844, 221. **Eigenmannina** Fowler, 1906, 518.
Histiodromus Gistel, 1848, 234. **Garmanina** Fowler, 1906, 518.
Microdus Kner, 1859, 292. **Abramites** Fowler, 1906, 518.
Rhytidus Kner, 1859, 292. **Peltapleura** Fowler, 1906, 518.
Cænotropus Günther, 1864, 333. **Anostomoides** Pellegrin, 1908, 529, 533.
Læmolyta Cope, 1872, 363. **Xyrocharax** Fowler, 1913, 547.
Leporellus Lütken, 1874, 376.

^{181a} *Curimatella* Pellégrin is introduced by error on page 533.

Family 230. HEMIODONTIDÆ

- Hemiodus** Müller, 1843, 216, 243. **Anisistia** Eigenmann, 1903, 502.
Parodon Cuvier & Valenciennes, 1849, 242. **Pœcilosomatops** Fowler, 1906, 518.
Centrophorus Kner, 1859, 292. **Hemiodopsis** Fowler, 1906, 518.
Characidium Reinhardt, 1866, 343. **Jobertina** Pellegrin, 1909, 533.
Saccodon¹⁸² Kner, 1863, 327. **Pœcilibrycon** Eigenmann, 1909, 533.
Nannostomus Günther, 1872, 365. **Archicheir** Eigenmann, 1909, 533.
Chorimycterus Cope, 1894, 464. **Microcharax** Eigenmann, 1909, 533.
Nanognathus Boulenger, 1895, 466. **Apareiodon** Eigenmann, 1916, 559.

¹⁸² Kner, *Sitzb. Acad. Wiss. München*, 225, 1863; orthotype *Saccodon wagneri* Kner.

Family 231. CITHARINIDÆ

- Citharinus**¹⁸⁸ (Cuvier) Oken, 1817, 98, 243.
Distichodus Müller & Troschel, 1845, 227, 242.
Ichthyoborus¹⁸⁴ Günther, 1864, 333.
Phago Günther, 1865, 337.
Xenocharax Günther, 1867, 345.
Nannocharax Günther, 1867, 345.
Nannæthiops Günther, 1871, 361.
Monostichodus Vaillant, 1900, 491.
Hemistichodus Pellegrin, 1900, 491, 557.
Neolebias Steindachner, 1894, 465.
Eugnathichthys Boulenger, 1898, 479.
Paraphago Boulenger, 1898, 485.
Neoborus Boulenger, 1898, 485.
Mesoborus Pellegrin, 1900, 490.
Citharidium Boulenger, 1902, 497.
Microstomatichthyoborus Nichols & Griscom, 1917, 562.
Paradistichodus¹⁸⁸ Pellegrin, 1922.

¹⁸⁸ The original spelling, *Cytharinus*, may be a lapse for *Citharinus*, as Cuvier wrote "les Citharines" and Valenciennes "*Citharinus*."

¹⁸⁴ Not *Ichthyoborus* Kaup, 1845, a genus of birds.

¹⁸⁸ "Poissons de l'Oubranchi-Chari," *Bull. Zool. Soc. France*, 47: 70; orthotype *Nannocharax dimidatus* Pellegrin.

Order GYMNONOTI

Family 232. RHAMPHICHTHYIDÆ

- Rhamphichthys** Müller & Troschel, 1849, 243.
Altona Kaup, 1856, 268.
Hypopomus Gill, 1864, 330.
Brachyrhamphichthys Günther, 1870, 357.
Steatogenys Boulenger, 1898, 479.
Gymnorhamphichthys Eigenmann, 1912, 543.

Family 233. APTERONOTIDÆ (*Sternarchidæ*)

- Apteronotus** Lacépède, 1800, 56.
Sternarchus Bloch & Schneider, 1801, 59.
Carapus¹⁸⁶ Rafinesque, 1810, 82.
Sternarchorhynchus Castlenau, 1855, 264.
Memarchus Kaup, 1856, 268.
Rhamphosternarchus Günther, 1870, 357.
Sternarchorhamphus Eigenmann & Ward, 1905, 512.
Sternarchella E. & W., 1905, 512.
Sternarchogiton E. & W., 1905, 512.
Porotergus Eigenmann, 1912, 543.
Orthosternarchus Ellis, 1913, 547.
Odontosternarchus Ellis, 1913, 547.

¹⁸⁶ The final disposition of this generic name is open to question. The decision of the International Commission removes it from this group to replace *Fierasfer* Cuvier.

Family 234. GYMNOTIDÆ

(Carapos)

- Gymnotus** Linnæus, 1758, 12.
Carapus Cuvier, 1817, 101, 243.
Carapo Oken, 1817, 101.
Sternopygus Müller & Troschel, 1849, 243.
Giton Kaup, 1856, 268.
Gymnotes Gill, 1864, 330.
Cryptops Eigenmann, 1894, 464.
Eigenmannia Jordan & Evermann, 1896, 473.

Family 235. ELECTROPHORIDÆ

(Electric Eels)

- Gymnotus** Linnæus, 1766 (not of 1758). **Electrophorus** Gill, 1864, 330.

Order EVENTOGNATHI

Family 236. CATOSTOMIDÆ

(Suckers; Buffalo Fishes)

- Catostomus* Le Sueur, 1817, 96.
Hypentelium Rafinesque, 1818, 109.
Cycleptus Rafinesque, 1819, 110.
*Ictiobus*¹⁸⁷ Rafinesque, 1820, 112.
Carpiodes Rafinesque, 1820, 112.
*Moxostoma*¹⁸⁸ Rafinesque, 1820, 112.
Decactylus Rafinesque, 1820, 113.
Teretulus Rafinesque, 1820, 113.
*Eurystomus*¹⁸⁹ Rafinesque, 1820, 113.
Stomocatus Bonaparte, 1840, 206.
Sclerognathus Cuvier & Valenciennes, 1844, 219.
Hylomyzon Agassiz, 1855, 261.
Ptychostomus Agassiz, 1855, 261.
Bubalichthys Agassiz, 1855, 261.
Acomus Girard, 1856, 269.
Minomus Girard, 1856, 269.
Placopharynx Cope, 1870, 356.
AMYZON Cope, 1872, 364.
Pantosteus Cope, 1876, 384.
Erimyzon Jordan, 1876, 386.
Lagochila Jordan & Brayton, 1877, 391.
Myxocyprinus Gill, 1878, 394.
Minytrema Jordan, 1878, 395.
Chasmistes Jordan, 1878, 396.
Quassilabia Jordan & Brayton, 1878, 395.
Lipomyzon Cope, 1881, 415.
Xyrauchen Kirsch, 1888, 443.
Deltistes Seale, 1896, 475.
Megastomatobus Fowler, 1913, 547.
Pithecomyzon Fowler, 1913, 548.
Scartomyzon Fowler, 1913, 548.
Notolepidomyzon Fowler, 1913, 548.
Thoburnia Jordan & Snyder, 1917, 562.

¹⁸⁷ Spelled *Ichthyobus* by authors.¹⁸⁸ Name corrected to *Myxostoma*.¹⁸⁹ Mythical.

Family 237. CYPRINIDÆ

(Carp, Dace, Minnows, Chubs, etc.)

- Cyprinus* Linnæus, 1758, 15.
Leuciscus Klein, 1775, 37.
Brama Klein, 1775, 37.
Mystus Klein, 1775, 38.
Labeo Cuvier, 1817, 99.
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¹⁹⁰ Spelled *Cirrhina* by authors.

- Phoxinus** Agassiz, 1835, 180.
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Leucosomus Heckel, 1842, 211.
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Ballerus Heckel, 1842, 211.
Chondrorhynchus Heckel, 1842, 211.
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Gymnostomus Heckel, 1842, 211.
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¹⁰¹ Later written *Hypsilepis*.

¹⁰² Misprinted *Ceraticthys*.

- Cliola* Girard, 1856, 269.
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^{192a} *Pseudophoxinus* "Heckel," page 211, "Genera of Fishes," should be canceled.

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^{192b} This nominal genus is no doubt based on an escaped gold fish. There are no *Cyprinida* in Australia nor in South America.

- HEXAPSEPHUS Günther, 1876, 385.
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 Falcularius Jordan & Snyder, 1903, 504.
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 Plagiognathops Berg, 1907, 521.

^{192c} *Paleontogr.*, 22: 411; orthotype *B. saropteryx* Marck. (Omitted in "Genera of Fishes.")

¹⁹⁸ Duplicated under the misprint *Scomberopsis* in "Genera of Fishes," page 447.

¹⁹⁴ The name *Longurio*, a synonym of *Saurogobio*, is preoccupied in *Diptera*.

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Paraleucogobio Berg, 1907, 521.
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Coccogenia Cocker ll & Callaway, 1909, 532.
Candidia Jordan & Richardson, 1909, 533.
Margariscus Cockerell, 1909, 532.
Macrhybopsis Cockerell & Allison, 1909, 532.
Temeculina Cockerell, 1909, 532.
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Rhodeops Fowler, 1910, 535.
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*Parabarb*us Franz, 1910, 535.
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Pararutilus Berg, 1912, 542.
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*Schizocypri*s Regan, 1914, 554.
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Brachydanio Weber & Beaufort, 1916, 561.
Capoëtobrama Berg, 1916, 558.
Acanthalburnus Berg, 1916, 558.
Leucalburnus Berg, 1916, 558.
Leucidius Snyder, 1917, 563.
*Sambwa*¹⁹⁶ Annandale, 1918.
*Microrasbora*¹⁹⁷ Annandale, 1918.
*Georgichthys*¹⁹⁸ Nichols, 1918.
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Acrossochilus Oshima, 1919, 570.
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Leucisculus Oshima, 1920, 572.
Rasborinus Oshima, 1920, 572.
Saphiodontella Oshima, 1920, 572.
*Exoglossops*¹⁹⁹ Fowler & Bean, 1920.
*ALISODON*²⁰⁰ Hay, 1921.

¹⁹⁵ This generic name was based, according to Dr. J. T. Nichols, on an aquarium fish from India wrongly reported from Argentina, a cyprinoid, not a characim. It is a synonym of *Esomus* Swainson, 1839, and of *Nuria* Valenciennes, 1842.

¹⁹⁶ *Records Ind. Mus.*, 14: 48; orthotype *S. resplendens* Annandale.

¹⁹⁷ *Records Ind. Mus.*, 14: 50; logotype *M. rubescens* Annandale.

¹⁹⁸ Nichols, *Proc. Biol. Soc. Wash.*, 31: 17; orthotype *Georgichthys scaphignathus* Nichols.

¹⁹⁹ "Fishes from Soochow, China," *Proc. U. S. Nat. Mus.*, 58: pl. 311; type *E. geei* Fowler & Bean.

²⁰⁰ *Proc. U. S. Nat. Mus.*, 58: 132; orthotype *A. mirus* Hay (fossil); Pleistocene, Bulverde, Texas.

Family 238. MEDIDÆ

Meda Girard, 1856, 269.

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Lepidomeda Cope, 1874, 375.

Family 239. COBITIDÆ

(Loaches)

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Barbatula Linck, 1790, 49.

Misgurnus Lacépède, 1803, 65.

Nemacheilus Van Hasselt, 1823, 116.

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- Acanthophthalmus** Van Hasselt, 1823, 116.
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Syncrossus Blyth, 1860, 294.
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Pangio Blyth, 1860, 294.
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Paracobitis Bleeker, 1863, 322.
Lepidocephalichthys Bleeker, 1863, 322.
Platacanthus Day, 1865, 367.
Octonema^{202a} Martens, 1868, 352.
Leptobotia Bleeker, 1870, 355.
Oreias Sauvage, 1874, 376.
Diplophysa Kessler, 1874, 376.
Pseudodon Kessler, 1874, 376.
Paramisgurnus Sauvage, 1878, 397.
Crossostoma Sauvage, 1878, 397.
Octonema Herzenstein, 1887, 438.
Lefua Herzenstein, 1888, 442.
Modigliania Perugia, 1893, 462.
Elxis Jordan & Fowler, 1903, 505.
Orthrias J. & F., 1903, 505.
Ussuria Nikolskii, 1904, 510.
Vaillantella Fowler, 1905, 512.
Gobiobotia Kreyenberg, 1911, 540.
Aborichthys Chaudhuri, 1913, 547.

²⁰¹ Spelled also *Acourus* by Swainson.

²⁰² Usually corrected to *Hymenophysa*.

^{202a} This name is apparently not preoccupied and is not identical with *Lefua*.

Family 240. HOMALOPTERIDÆ

- Homaloptera** Van Hasselt, 1823, 116.
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Helgia Vinciguerra, 1889, 448.
Glanioptis Boulenger, 1899, 485.
Ellopostoma Vaillant, 1902, 500.
Parhomaloptera Vaillant, 1902, 500.
Gyrinocheilus Vaillant, 1902, 500.
Homalopteroides Fowler, 1905, 513.
Lepturichthys Regan, 1911, 540.
Hemimyzon Regan, 1911, 540.
Blavania Hora, 1922. (See Index.)

Family 241. ADIPOSIIDÆ

The genus *Adiposia*, with a well-developed adipose fin, approaches the *Nematognathi*, and may stand as a separate family pending investigation. *Adiposia*²⁰³ Annandale & Hora, 1921.

²⁰³ "The Fish of Seistan," *Records of the Indian Museum*, 18: Part IV, pp. 157, 187; type *Nemachilus macmahoni* Chaudhuri.

Order NEMATOGNATHII

Family 242. DIPLOMYSTIDÆ

- Diplomystes** Duméril, 1856, 269.
Diplomystes (Duméril) Bleeker, 1862, 311.

Family 243. ARIIDÆ (*Tachysuridæ*) (Sea Cat-fishes)

The name *Arius* may be provisionally retained in place of *Tachysuras*, known from a drawing only, perhaps intended for some fresh-water form.

- Tachysurus** Lacépède, 1803, 66.
Bagre (Cuvier) Oken, 1817, 100.
Glanis Agassiz, 1829, 131.
Breviceps Swainson, 1838, 194.
Felichthys Swainson, 1839, 203.
Arius Cuvier & Valenciennes, 1840, 206.
Galeichthys Cuv. & Val., 1840, 206.
Batrachocephalus Bleeker, 1847, 233.
Osteogeneiosus Bleeker, 1847, 230.
Ketengus Bleeker, 1847, 230.
Ariodes Müller & Troschel, 1849, 243.
Mystus Gronow, 1854, 259.
Ailurichthys²⁰⁴ Baird & Girard, 1854, 255.
Genidens Castelnau, 1855, 264.
Hexanematichthys Bleeker, 1858, 278.
Selenaspis Bleeker, 1858, 278.
Cephalocassis Bleeker, 1858, 278.
Netuma Bleeker, 1858, 278.
Guiritinga Bleeker, 1858, 278.
Osteogeneiosus Bleeker, 1858, 278.
Batrachocephalus Bleeker, 1858, 278.
Ketengus Bleeker, 1858, 278.
Hemipimelodus Bleeker, 1858, 278.
Ariopsis Gill, 1861, 303.
Parancistrus Bleeker, 1862, 311.
Hemiaris Bleeker, 1862, 311.
Pseudarius Bleeker, 1862, 311.
Catastoma (Kuhl & Van Hasselt) Bleeker, 1862, 312.
Leptarius Gill, 1863, 324.
Notarius Gill, 1863, 324.
Paradiplomystes Bleeker, 1863, 312.
RHINEASTES Cope, 1872, 364.
ASTEPHUS Cope, 1873, 368.
Neoarius Castelnau, 1877, 388.
Cathorops Jordan & Gilbert, 1882, 420.
Nedystoma Ogilby, 1898, 483.
Cinetodus Ogilby, 1898, 483.
Aspistor Jordan & Evermann, 1898, 482.
Pachyula Ogilby, 1898, 483.
Ancharius Steindachner, 1880, 406.
Nemapteryx Ogilby, 1908, 529.
Doiichthys Weber, 1913, 551.
Tetranesodon Weber, 1913, 551.

²⁰⁴ Often written *Aelurichthys*.

Family 244. DORADIDÆ

- Cataphractus* Catesby, 1771, 32.
Ageneiosus Lacépède, 1803, 66.
Doras Lacépède, 1803, 65.
Ceratorhynchus Agassiz, 1829, 131.
Centrochir Agassiz, 1829, 132.
Auchenipterus²⁰⁵ Cuvier & Valenciennes, 1840.
Trachelyopterus Cuv. & Val., 1840, 206.
Euanemus Müller, 1843, 216.
Oxydoras Kner, 1855, 265.
Pseudodoras Bleeker, 1858, 278.
Hemidoras Bleeker, 1858, 278.
Davalla Bleeker, 1858, 278.
Trachycorystes Bleeker, 1858, 279.
Asterophysus Kner, 1858, 282.
Centromochlus Kner, 1858, 282.
Platyodoras Bleeker, 1862, 311.
Lithodoras Bleeker, 1862, 311.
Rhinodoras Bleeker, 1862, 311.
Astroodoras Bleeker, 1862, 311.
Pterodoras Bleeker, 1862, 311.
Acanthodoras Bleeker, 1862, 311.
Amblyodoras Bleeker, 1862, 311.
Parauchenipterus Bleeker, 1862, 311.
Trachycorystes Bleeker, 1862, 311.
Pseudauchenipterus Bleeker, 1862, 311.
Auchenipterichthys Bleeker, 1862, 311.
Tetranematichthys Bleeker, 1862, 312.
Pseudogeneiosus Bleeker, 1862, 312.
Trachelyopterichthys Bleeker, 1862, 311.
Dianema Cope, 1872, 363.
Physopyxis Cope, 1872, 363.
Zathorax Cope, 1872, 363.
Glanidium Lütken, 1874, 376.
Wertheimeria Steindachner, 1876, 386.
Epapterus Cope, 1878, 393.
Pseudepapterus Steindachner, 1893. (See Index.)
Leptodoras Boulenger, 1898, 479.
Mormyrostoma Ribeiro, 1912, 545.
Parasturisoma Ribeiro, 1912, 545.
Tatia Ribeiro, 1912, 545.
Tympanopleura Eigenmann, 1912, 542.
Pseudepterus Steindachner, 1915, 558.
Entomocorus Eigenmann, 1917, 562.
Ceratocheilus Ribeiro, 1918, 564.
Tannayia Ribeiro, 1918, 564.

²⁰⁵ *Histoire naturelle des Poissons*, 15: 207; orthotype *Hypophthalmus nuchalis* Spix; later made type of *Euanemus*. (Omitted in "Genera of Fishes.")

Family 245. **PLOTOSIDÆ**

- Plotosus** Lacépède, 1803, 66.
Tandanus Mitchell, 1839, 196.
Deportator Gistel, 1848, 237.
Paraplotosus²⁰⁶ Bleeker, 1862.
Chæroplotosus Kner, 1864, 334.
Copidoglanis^{205a} Günther, 1864, 332.
Cnidoglanis Günther, 1864, 332.
Gastromyzon Günther, 1874, 375.
Neoplotosus Castelnau, 1875, 378.
Neosilurus Castelnau, 1877, 388.
Eumeda Castelnau, 1878, 393.
Cainosilurus Macleay, 1881, 416.
Endorrhis Ogilby, 1898, 483.
Euristhmus Ogilby, 1899, 487.
Anyperistius Ogilby, 1908, 529.
Porochilus Weber, 1913, 551.
Lambertia Perugia, 1894, 465.
Ostophycephalus²⁰⁷ Ogilby, 1899, 487.
Oloplotosus Weber, 1913, 551.
Anodontoglanis Rendahl, 1922 (See Index A).

^{205a} Misprinted *Copidoglanis*.²⁰⁶ "Systema Silurorum Revisum," 100; orthotype *Plotosus albilabris* Cuvier & Valenciennes. (Omitted in "Genera of Fishes.")²⁰⁷ Based on a starveling example of *Cnidoglanis*, according to Waite.Family 246. **SILURIDÆ**

(Sheat-fishes)

- Silurus** Linnæus, 1758, 14.
Ompok Lacépède, 1803, 65.
Callichrous Hamilton, 1822, 114.
Wallago Bleeker, 1851, 247.
Glanis Agassiz, 1856, 267.
Belodontichthys Bleeker, 1858, 279.
Pseudosilurus Bleeker, 1858, 279.
Kryptopterus²⁰⁸ Bleeker, 1858, 279.
Kryptopterichthys Bleeker, 1858, 279.
Micronema Bleeker, 1858, 279.
Phalacronotus Bleeker, 1858, 279.
Hemisilurus Bleeker, 1858, 279.
Silurichthys Bleeker, 1858, 278.
Silurodes Bleeker, 1860, 293, 312.
Pterocryptis Peters, 1861, 308.
Parasilurus Bleeker, 1862, 310.
Silurodon Kner, 1864, 334, 367.
Neosilurus Steindachner, 1867, 348.
Diastatomycter Vaillant, 1891, 456.
Apodoglanis Fowler, 1905, 512.

²⁰⁸ Written *Cryptopterus* by purists.Family 247. **AMEIURIDÆ**

(Horned Pout; Channel Cats)

- Bagre** Catesby, 1771, 31.
Noturus Rafinesque, 1818, 109.
Pilodictis²⁰⁹ Rafinesque, 1819, 110.
Ictalurus²¹⁰ Rafinesque, 1820, 113.
Ellioptis Rafinesque, 1820, 113.
Leptops Rafinesque, 1820, 112.
Opladelus²¹¹ Rafinesque, 1820, 112.
Ameiurus²¹² Rafinesque, 1820, 112.
Ilictis Rafinesque, 1820, 112.
Synechoglanis Gill, 1858, 280.
Schilbeodes Bleeker, 1858, 279.
Gronias Cope, 1864, 329.
Rabidus Jordan & Evermann, 1896, 473.
Haustor J. & E., 1896, 473.
Villarius Rutter, 1896, 475.
Istlarius Jordan & Snyder, 1899, 486.
Trogloglanis Eigenmann, 1919, 566.

²⁰⁹ Mythical, the name corrected to *Pelodichthys*.²¹⁰ Corrected to *Ichthælorus*.²¹¹ Name corrected to *Hopladelus*.²¹² Also spelled *Amiurus*.

Family 248. **BAGRIDÆ**

- Mystus* Gronow, 1763, 21.
Mystus (Gronow) Scopoli, 1777, 42.
Porcus Isidore Geoffroy St. Hilaire, 1818, 107.
BUCKLANDIUM König, 1825, 118.
Bagrus Cuvier & Valenciennes, 1839, 194.
Olyra McClelland, 1842, 212.
GLYPTOCEPHALUS Agassiz, 1844, 217.
Bagroides Bleeker, 1851, 248.
Macrones Duméril, 1856, 269.
Clarotes Kner, 1855, 265.
Pseudobagrus Bleeker, 1858, 278.
Melanodactylus Bleeker, 1858, 278.
Chrysichthys Bleeker, 1858, 278.
Octonematischthys Bleeker, 1858, 278.
Rita Bleeker, 1858, 278.
Auchenaspis Bleeker, 1858, 278.
Rama Bleeker, 1858, 279.
Leiocassis Bleeker, 1858, 278.
Bagrichthys Bleeker, 1860, 293, 312.
Pseudobagrus Bleeker, 1860, 293.
Hemibagrus Bleeker, 1862, 312.
Pseudobagrichthys Bleeker, 1862, 312.
Aspidobagrus Bleeker, 1862, 312.
Hypselobagrus Bleeker, 1862, 313.
Branchiosteus Gill, 1862, 318.
Heterobagrus Bleeker, 1864, 329.
Auchenoglanis Günther, 1864, 334.
Rhinobagrus Bleeker, 1865, 335.
Pelteobagrus Bleeker, 1865, 335.
Gogrius Day, 1867, 344.
Liobagrus Hilgendorf, 1878, 395.
Cranoglanis Peters, 1880, 405.
Neobagrus Bellotti, 1892, 457.
Chrysobagrus Boulenger, 1899, 485.
Gephyroglanis Boulenger, 1899, 485.
Notoglanidium Günther, 1902, 498.
Leptoglanis Boulenger, 1902, 496.
Fluvidraco Jordan & Fowler, 1903, 505.
*FAJUMIA*²¹³ Stromer, 1904, 511.
SOCNOPÆA Stromer, 1904, 511.
Phyllonemus Boulenger, 1906, 517.
Parauchenoglanis Boulenger, 1911, 538.
Liauchenoglanis Boulenger, 1916, 558.
Amarginops Nichols & Griscom, 1917, 562.
Gnathobagrus Nichols & Griscom, 1917, 562.
Aoria Jordan, 1919, 567.
*Macronoides*²¹⁴ Hora, 1921.
*Laguvia*²¹⁵ Hora, 1921.

²¹³ Stromer compares this genus to *Platystoma*, a Brazilian pimelodid. But it probably belongs with *Socnopæa* to the *Bagridæ*.

²¹⁴ Sunder Lal Hora, "Fish and Fisheries of Manipur," *Rec. Ind. Mus.*, 22: Part III, 179; logotype *Batasio affinis* Blyth.

²¹⁵ "Fishes from the Eastern Himalayas," *Rec. Ind. Mus.*, 22: Part V, 740; logotype *Pimelodus asperus* McClelland.

Family 249. **AMBLYCIPITIDÆ**

- Amblyceps* Blyth, 1858, 279.
Acrochordonichthys Bleeker, 1858, 279.
Akysis Bleeker, 1860, 293.
Sosia Vaillant, 1902, 500.

Family 250. **SISORIDÆ**

- Sisor* Hamilton, 1822, 115.
*Glyptosternon*²¹⁶ McClelland, 1842, 212.
Erethistes Müller & Troschel, 1849, 243.
Bagarius Bleeker, 1853, 253.
Gagata Bleeker, 1858, 279.
Hara Blyth, 1860, 294.
Batasio Blyth, 1860, 294.
Aglyptosternon Bleeker, 1862, 312.
Euclyptosternum Günther, 1864, 332.
Callomystax Günther, 1864, 332.
Chiloglanis Peters, 1868, 353.
Nanera Day, 1876, 385.
teinia Steindachner, 1881, 417.
oma Regan, 1905, 515.

²¹⁶ Spelled later *Glyptosternum*.

Family 251. AMPHILIIDÆ

- | | |
|---|--|
| Amphilius Günther, 1864, 332. | Andersonia Boulenger, 1900, 488. |
| Chimarrichthys ²¹⁷ Sauvage, 1874. | Phractura Boulenger, 1900, 488. |
| Doumea Sauvage, 1879, 401. | Belonoglanis Boulenger, 1902, 496. |
| Anoplopterus Pfeffer, 1889, 448. | Paraphractura Boulenger, 1902, 496. |
| Peltura Perugia, 1892, 459. | Trachyglanis Boulenger, 1902, 496. |
| Chimarrhoglanis Vaillant, 1897, 478. | Paramphilius Pellegrin, 1907, 526. |

²¹⁷ Sauvage, *Rev. Zool.* (3) 2: 332; type *C. davidi* Sauvage. (Omitted in "Genera of Fishes.")

Family 252. LEPIDOGLANIDÆ

Said to resemble *Chimarrichthys* but to have cycloid scales like a cyprioid, a character hard to explain.

Lepidoglanis Vaillant, 1889, 448.

Family 253. CHACIDÆ

Chaca Gray, 1831, 138.

Family 254. SCHLBEIDÆ

- | | |
|---|---|
| Schilbe (Cuvier) Oken, 1817, 100. | Lais Bleeker, 1860, 293. |
| Ailia Gray, 1831, 138. | Eutropiichthys Bleeker, 1862, 310. |
| Acanthonotus Gray, 1831, 138. | Pseudeutropius Bleeker, 1862, 310. |
| Silonia Swainson, 1839, 203. | Gymnallabes Günther, 1867, 345. |
| Clupisoma Swainson, 1839, 204. | Ailichthys Day, 1871, 361. |
| Pachypterus Swainson, 1839, 204. | Anopleutropius Vaillant, 1893, 463. |
| Pusichthys Swainson, 1839, 204. | Parailia Boulenger, 1899, 485. |
| Silundia Cuvier & Valenciennes, 1840, 206. | Physailia Boulenger, 1901, 492. |
| Eutropius Müller & Troschel, 1849, 243. | Pseudolais Vaillant, 1902, 500. |
| Schilbeichthys Bleeker, 1858, 279. | Ansorgia Boulenger, 1912, 542. |
| Siluranodon Bleeker, 1858, 279. | Laides Jordan, 1919, 568. |
| Helicophagus Bleeker, 1858, 277. | Pareutropius ²¹⁸ Regan, 1920. |

²¹⁸ "Three New Fishes from the Tanganyika Territory," *Ann. Mag. Nat. Hist.*, July, 1920, 103; type *P. micristius* Regan.

Family 255. CLARIIDÆ

- | | |
|--|--|
| Clarias Gronow, 1763, 20. | Phagorus McClelland, 1844, 220. |
| Clarias (Gronow) Scopoli, 1777, 42. | Cossyphus McClelland, 1844, 220. |
| Macropteronotus Lacépède, 1803, 65. | Channalabes Günther, 1873, 369. |
| Heterobranchus Isidore Geoffroy St. Hilaire, 1818, 107. | Clariallabes Boulenger, 1898, 576. |
| Heteropneustes Müller, 1839, 196. | Allabenchelys Boulenger, 1902, 497. |
| Saccobranchus Cuvier & Valenciennes, 1840, 206. | Dinotopterus Boulenger, 1906, 516. |

Family 256. PANGASIIDÆ

- | | |
|--|--|
| Pangasius Cuvier & Valenciennes, 1840, 206. | Pseudopangasius Bleeker, 1862, 310. |
| | Neopangasius Popta, 1904, 510. |

Family 257. **MOCHOKIDÆ****Synodontis** Cuvier, 1817, 100.**Mochokus**²¹⁹ Joannis, 1835, 182.**Hemisynodontis** Bleeker, 1862, 311.**Pseudosynodontis** Bleeker, 1862, 311.**Brachysynodontis** Bleeker, 1862, 311.**Leiosynodontis** Bleeker, 1862, 311.**Atopochilus** Sauvage, 1879, 401.**Oxyglanis** Vinciguerra, 1898, 484.**Euchilichthys** Boulenger, 1900, 488.**Microsynodontis** Boulenger, 1903, 501.**Slatinia** Werner, 1906, 521.**Acanthocleithron** Nichols & Griscom, 1917, 562.²¹⁹ Spelled *Mochocus* by Günther.Family 258. **MALAPTERURIDÆ** (*Torpedinidæ*)
(Electric Cat-Fishes)*Torpedo*²²⁰ Forskål, 1771, 32.*Torpedo* (Forskål) Gill, 1890.**Malapterurus** Lacépède, 1803, 65.²²⁰ The species examined by Forskål is an electric cat-fish; the synonym is mixed with the electric ray.Family 259. **HELOGENIDÆ****Helogenes** Günther, 1863, 326.Family 260. **HYPOPTHALMIDÆ****Hypophthalmus** Spix, 1829, 131.**Pseudohypophthalmus** Bleeker, 1862, 312.**Notophthalmus** Hyrtl, 1859, 292.**Davalla** Bleeker, 1858, 278.Family 261. **PIMELODIDÆ****Pimelodus** Lacépède, 1803, 65.**Pimelotropis** Gill, 1859, 291.**Phractocephalus** Agassiz, 1829, 131.**Brachyplatystoma** Bleeker, 1862, 312.**Platystoma** Agassiz, 1829, 131.**Hemisorubim** Bleeker, 1862, 312.**Sorubim** Spix, 1829, 132.**Pseudoplatystoma** Bleeker, 1862, 312.**Pirarara** Spix, 1829, 173.**Hemiplatystoma** Bleeker, 1862, 312.**Pteronotus** Swainson, 1839, 704.**Sorubimichthys** Bleeker, 1862, 312.**Calophysus** Müller, 1843, 216.**Platystomichthys** Bleeker, 1862, 312.**Abron** Gistel, 1848, 237.**Leiarius** Bleeker, 1862, 312.**Sciades** Müller & Troschel, 1849, 243.**Pseudariodes** Bleeker, 1862, 312.*Conostome*²²¹ Duméril, 1856, 269.**Malacobagrus** Bleeker, 1862, 312.**Conorhynchus** Bleeker, 1858, 278.**Parabagrus** Bleeker, 1862, 312.**Zungaro** Bleeker, 1858, 278.**Pseudorhamdia** Bleeker, 1862, 310.**Rhamdia** Bleeker, 1858, 278.**Pseudopimelodus** Bleeker, 1863, 322.**Pinirampus** Bleeker, 1858, 278.**Notoglanis** Günther, 1864, 332.**Sciadeichthys** Bleeker, 1858, 278.**Bagropsis** Lütken, 1874, 376.**Heptapterus** Bleeker, 1858, 278.**Pimelodina** Steindachner, 1876, 387.**Piratinga** Bleeker, 1858, 279.**Lophiosilurus** Steindachner, 1876, 387.**Platynematchthys** Bleeker, 1858, 279.**Nannoglanis** Boulenger, 1887, 437.**Piramutana** Bleeker, 1858, 279.**Rhamdella** Eigenmann & Eigenmann, 1888, 440.**Batrachoglanis** Gill, 1858, 281.**Luciopimelodus** E. & E., 1888, 440.**Pimelonotus** Gill, 1858, 281.²²¹ In French form only.

- Pimelodella* E. & E., 1888, 440.
Duopalatinus E. & E., 1888, 440.
Sciadeoides E. & E., 1888, 440.
Steindachneria E. & E., 1888, 440.
Nemuroglanis E. & E., 1889, 445.
Acentronichthys E. & E., 1889, 445.
Phrenatobius Goeldi, 1898, 480.
Paulicea Ihering, 1898, 480.
Perugia Eigenmann & Norris, 1900, 489.
Iheringichthys E. & N., 1900, 489.
Bergiella E. & N., 1900, 489.
Goeldiella E. & N., 1900, 489.
Imparfinis E. & N., 1900, 489.
Bergiaria E. & N., 1901, 493.
Typhlobagrus Ribeiro, 1907, 526.
Rhamdioglanis Ihering, 1907, 524.
Tæniionema Eigenmann & Bean, 1907, 522.
Zungaropsis Steindachner, 1908, 531.
Megalonema Eigenmann, 1910, 535, 542.
Cephalosilurus Haseman, 1911, 539.
Platysilurus Haseman, 1911, 539.
Rhamdiopsis Haseman, 1911, 539.
Microglanis Eigenmann, 1912, 542.
Brachyglanis Eigenmann, 1912, 542.
Leptoglanis Eigenmann, 1912, 542.
Myoglanis Eigenmann, 1912, 542.
Chasmocranus Eigenmann, 1912, 542.
Nannorhamdia Regan, 1913, 550.
Cetopsorhamdia Eigenmann, 1916, 558.
Cheirocerus Eigenmann, 1917, 562.
Leptorhamdia Eigenmann, 1918.
Typhlobagrus Ribeiro, 1918, 564.
Steindachneridion Eigenmann & Eigenmann, 1919, 566.
Laimumena Sauvage, 1884, 430.
Platypogon Starks, 1913, 551.
*Breviglanis*²²² Eigenmann, 1909.
*Chasmocephalus*²²³ Eigenmann, 1909.

²²² "Fresh Water Fish S. A.," 384; type *B. frenata* Eigenmann.

²²³ "Catal. and Bibliogr. S. Am. Fresh Water Fishes," 1909, 384; type *Ch. longior*, Eigenmann. (Omitted in "Genera of Fishes.")

Family 262. BUNOCEPHALIDÆ

- Bunocephalus* Kner, 1855, 265.
Bunocephalichthys Bleeker, 1858, 279.
Dysichthys Cope, 1874, 374.
Xiliphius Eigenmann, 1912, 543.

Family 263. ASPREDINIDÆ

- Aspredo* Gronow, 1763, 20.
Aspredo (Gronow) Scopoli, 1777, 42.
Platystacus Klein, 1779, 168.
Platystacus (Klein) Bloch, 1794, 53.
Platistus Rafinesque, 1815, 171.
Cotylephorus Swainson, 1839, 204.
Aspredinichthys Bleeker, 1858, 279.
Agmus Eigenmann, 1912, 542.
Chamaigenes Eigenmann, 1912, 542.

Family 264. PYGIDIIDÆ

- Eremophilus* Humboldt, 1806, 76.
*Thrycomycterus*²²⁴ Humboldt & Valenciennes, 1811, 170.
Pygidium Meyen, 1835, 182.
Trichomycterus Valenciennes, 1846, 230.
Vandellia Cuvier & Valenciennes, 1846, 407.
Nematogenys Girard, 1854, 258.
*Pareiodon*²²⁵ Kner, 1855, 265.
Stegophilus Reinhardt, 1858, 284.
Astemomycterus Guichenot, 1860, 296.
Trachypoma Giebel, 1870, 357.
Pariolius Cope, 1872, 363.
Tridens Eigenmann & Eigenmann, 1889, 446.
Pseudostegophilus E. & E., 1889, 446.
Miuroglanis E. & E., 1889, 446.
Acanthopoma Lütken, 1891, 455.
Henonemus Eigenmann & Ward, 1907, 522.

²²⁴ Later spelled *Trichomycterus*.

²²⁵ Later spelled *Pariodon*.

Homodiætus E. & W., 1907, 522.
Hatcheria Eigenmann, 1909, 533.
Ochmacanthus Eigenmann, 1912, 542.
Paravandellia Ribeiro, 1912, 545.
Gyrinurus Ribeiro, 1912, 545.

Cobitiglanis Fowler, 1914, 553.
Pleurophysus Ribeiro, 1918, 564.
Urinophilus Eigenmann, 1918, 563.
Branchoica Eigenmann, 1918, 563.
Scleronema Eigenmann, 1918, 563.

Family 265. CETOPSIDÆ

Cetopsis Agassiz, 1829, 131.
Hemicetopsis Bleeker, 1862, 311.
Pseudocetopsis Bleeker, 1862, 311.
Paracetopsis (Guichenot) Bleeker, 1862, 312.

Paracetopsis Eigenmann & Bean, 1907, 522.
*Cetopsogiton*²²⁶ E. & B., 1910.

²²⁶ *Rept. Princeton Univ. Exp. Patagonia*, 111–398, 1910; type *Cetopsis occidentalis* Steindachner. (Omitted in "Zoological Record.") Same as *Paracetopsis* Eigenmann & Bean, preoccupied.

Family 266. ARGIDÆ

Astroblepus Humboldt, 1806, 76.
Cyclopium Swainson, 1839, 204.
Arges Cuvier & Valenciennes, 1840, 206.

Brontes Cuv. & Val., 1840, 206.
Strephon Gistel, 1848, 235.
Styrogenes Günther, 1864, 332.

Family 267. CALlichthyIDÆ

Callichthys Gronow, 1763, 21.
Callichthys (Gronow) Scopoli, 1777, 42.
Cataphractus Bloch, 1793, 51.
Corydoras Lacépède, 1803, 66.
Cordorinus Rafinesque, 1815, 91.
Hoplisoma Swainson, 1839, 203.
Hoplosternum Gill, 1858, 281.
Scleromystax Günther, 1864, 332.

Brochis Cope, 1872, 363.
Chænothorax Cope, 1878, 394.
Decapogon^{228a} Eigenmann & Eigenmann, 1888, 440.
Osteogaster Cope, 1894, 464.
Aspidoras Ihering 1907, 524.
Cascadura Ellis, 1913, 547.
Cataphractus Fowler, 1915, 556.

^{228a} *Decapogon* Ribeiro, p. 565, "Genera of Fishes," should be canceled.

Family 268. LORICARIIDÆ

Loricaria Linnæus, 1758, 14.
Plecostomus Gronow, 1763, 21.
Hypostomus Lacépède, 1803, 66.
Acanthicus Spix, 1829, 131.
Rhinelepis Spix, 1829, 131.
Sturisoma Swainson, 1839, 203.
Ancistrus Kner, 1854, 260.
Acestra Kner, 1854, 260.
Hemiodon Kner, 1854, 260.
Acanthodemus Castelnau, 1855, 264.
Pterygoplichthys Gill, 1858, 281.
Hemiancistrus Bleeker, 1862, 311.
Pseudancistrus Bleeker, 1862, 311.
Plecostomus (Gronow) Bleeker, 1862.
Pseudorinelepis Bleeker, 1862, 311.
Hemiloricaria Bleeker, 1862, 311.
Pseudacanthicus Bleeker, 1862, 311.

Parahemiodon Bleeker, 1862, 311.
Pseudoloricaria Bleeker, 1862, 311.
Loricariichthys Bleeker, 1862, 311.
Oxyloricaria Bleeker, 1862, 311.
Rineloricaria Bleeker, 1862, 311.
Pseudohemiodon Bleeker, 1862, 311.
Hemiodontichthys Bleeker, 1862, 311.
Cochliodon Heckel, 1864, 332.
Hypoptopoma Günther, 1868, 351.
Liposarcus Günther, 1864, 332.
Otocinclus Cope, 1872, 363.
Xenomystus Lütken, 1873, 370.
Harttia Steindachner, 1876, 387.
Hassar Eigenmann & Eigenmann, 1888, 440.
Neoplecostomus E. & E., 1888, 440.
Farlowella E. & E., 1889, 445.

- Oxyropsis** E. & E., 1889; 445.
Hisonotus E. & E., 1889, 445.
Parotocinclus E. & E., 1889, 445.
Panaque E. & E., 1889, 446.
Delturus E. & E., 1889, 446.
Hemipsilichthys E. & E., 1889, 446.
Microlepidogaster E. & E., 1889, 445.
Aristommata Holmberg, 1893, 462.
Xenocara Regan, 1904, 510.
Reganella²²⁷ Eigenmann, 1905.
Thysanocara²²⁸ Regan, 1906, 520.
Pogonopoma Regan, 1907, 526.
Kronichthys Ribeiro, 1908, 530.
Corymbophanes Eigenmann, 1909, 532.
Lithogenes Eigenmann, 1909, 532.
Canthopomus²²⁹ Eigenmann, 1909.
Acestridium Haseman, 1911, 539.
Lithoxus Eigenmann, 1912, 542.
Stoniella Fowler, 1914, 553.
Diapaletoplites Fowler, 1915, 556.
Leptoancistrus Meek & Hildebrand, 1916, 559.
Pareiorhaphis²³⁰ Ribeiro, 1918.
Pseudotocinclus Nichols, 1919, 569.
Cheirododus²³¹ Eigenmann, 1921.
²²⁷ Eigenmann, *Science*, 21: 793, May 18, 1905; orthotype *Hemiodon depressus* Kner; substitute for *Hemiodon*; preoccupied in mollusks.
²²⁸ Type *Ancistrus cirrhosa* Kner.
²²⁹ Cat. Fresh Water Fishes S. A. 407; type *Rhinelepis genibarbis* Cuv. & Val. (Omitted in "Genera of Fishes.")
²³⁰ *Rev. Soc. Sci. Rio de Janeiro*, 2: 106; orthotype *Hemipsilichthys calmoni* Ribeiro.
²³¹ Orthotype *Plecostomus hondæ* Regan.

Order INIOMI

The fishes of this order, mostly inhabitants of depths of the sea and thus more or less degenerate structurally, bear a strong external resemblance to the stomiatoid *Isospondyli*, with which they have been usually associated and with which they agree in possessing an adipose dorsal fin, as in the *Salmonidæ*, *Characinidæ*, *Siluridæ*, and *Percopsidæ*. The persistence of this primitive character does not necessarily indicate close relationship among the fishes possessing it. In the *Iniomi*, the premaxillary is well developed, excluding the maxillary from the margin of the upper jaw.

Family 269. CHEIROTHRICIDÆ

- MEGAPUS** Marck & Schlüter, 1865, 339. **EXOCETOIDES** Davis, 1885, 431.
CHEIROTHRIX²³² Pictet & Humbert, 1866, 342. **MEGISTOPUS** Landois, 1894, 465.

²³² Spelled *Chirothrix* by authors.

Family 270. AULOPIDÆ

- Aulopus** Cuvier, 1817, 98. **Scopelosaurus** Bleeker, 1860, 294.
SARDINIOIDES von der Marck, 1858, 283.

Family 271. SYNODONTIDÆ

(Lizard Fishes)

- Synodus** Gronow, 1763, 20. **Synodus** (Gronow) Scopoli, 1777, 42.
Saurus Catesby, 1771, 29. **Soarus**²³³ Linck, 1790, 49.

²³³ A misprint for *Saurus*, the genus undescribed and unidentifiable.

Tirus Rafinesque, 1810, 80.
Saurus Cuvier, 1817, 98.
Alpismaris Risso, 1826, 120.
Laurida Swainson, 1839, 203.
Triurus Swainson, 1839, 203.
Saurida Cuvier & Valenciennes, 1849, 242.
Sauridichthys Bleeker, 1858, 278.

Trachinocephalus Gill, 1861, 303.
Bathysaurus Günther, 1878, 395.
Pelopsia Facciola, 1883, 423.
Bathylaco Goode & Bean, 1895, 467.
Goodella Ogilby, 1897, 477.
Xystodus Ogilby, 1910, 536.

Family 272. **HARPODONTIDÆ**
 (Bombay Ducks)

Harpodon Le Sueur, 1825, 172.

Family 273. **CHLOROPHTHALMIDÆ**

Chlorophthalmus Bonaparte, 1840, 142,
 206.

Hyphalonedrus²³⁴ Goode, 1880.
Bathysauropsis Regan, 1911, 540.

²³⁴ *Proc. U. S. Nat. Mus.*, 111: 183; type *H. chalybeius* Goode. (Omitted in "Genera of Fishes.")

Family 274. **PARALEPIDÆ** (*Sudidæ*)

Sudis Rafinesque, 1810, 80.
Paralepis Cuvier, 1817, 104.
Prymnothonus Richardson, 1844, 223.
Arctozenus Gill, 1864, 330.
ANAPTERUS Sauvage, 1873, 371.
Symproptopterus Cocco, 1885, 430.
Lestidium Gilbert, 1905, 513.

Notolepis Dollo, 1908, 527.
Parasudis Regan, 1911, 540.
Lestidiops Hubbs, 1916, 559.
Notosudis Waite, 1916, 561.
TROSSULUS²³⁵ Jordan, 1921.
LESTICHTHYS²³⁶ Jordan, 1921.

²³⁵ "Fish Fauna Cal. Tertiary," 250; orthotype *Trossulus exoletus* Jordan.

²³⁶ *Loc. cit.*, 250; orthotype *Lesticthys porteousi* Jordan.

Family 275. **EVERMANELLIDÆ** (*Odontostomidæ*; *Scopelarchidæ*)

The members of the small group are not all well known, and may prove incongruous.

Odontostomus Cocco, 1838, 191.
Neosudis Castelnau, 1873, 368.
Scopelarchus Alcock, 1896, 470.

Evermanella Fowler, 1901, 493.
Dissomma Brauer, 1902, 497.
Promacheon Weber, 1913, 551.

Family 276. **BATHYPTEROIDÆ**

Bathypterois Günther, 1878, 395.
Synapteretmus²³⁷ Goode & Bean, 1895.

Hemipterois Regan, 1911, 540.
Belonopterois Roule, 1916, 560.

²³⁷ "Oceanic Ichthyology," 64; orthotype *Bathypterois quadrifilis* Günther. (Omitted in "Genera of Fishes.")

Family 277. **BENTHOSAURIDÆ**

Benthosaurus Goode & Bean, 1886, 435.

Family 278. **MYCTOPHIDÆ** (*Scopelidæ*)
(Lantern Fishes)

Of the numerous fossil genera mentioned below, several may belong to related families, rather than to *Myctophidæ*.

- Myctophum** Rafinesque, 1810, 82.
Scopelus Cuvier, 1817, 98.
Macrostoma Risso, 1826, 120.
Nyctophus Cocco, 1829, 133.
Alysia Lowe, 1839, 195.
Lampanyctus Bonaparte, 1840, 142, 206.
RHINELLUS Agassiz, 1844, 217.
OSMEROIDES Agassiz, 1844, 219.
HOLOSTEUS Agassiz, 1844, 219.
ACROGNATHUS Agassiz, 1844, 219.
Phanerobranchus Cocco, 1846, 574.
Cyrtorhynchus Costa, 1855, 574.
RHAMPHORNIMIA Costa, 1857, 275.
SARDINIUS von der Marck, 1858, 283.
PALIMPHEMUS Kner, 1862, 319.
Neoscopelus Johnson, 1863, 575.
LEPTOSOMUS von der Marck, 1863, 328.
MICROCCELIA von der Marck, 1863, 328.
TACHYNECTES von der Marck, 1863, 328.
Dasyscopelus Günther, 1864, 333.
Notoscopelus Günther, 1864, 333.
BRACHYSPONDYLUS Marck & Schlüter, 1865, 339.
DERMATOPTYCHUS M. & S., 1865, 339.
DACTYLOPOGON M. & S., 1865, 339.
OPISTHOPTERYX²³⁸ Pictet & Humbert, 1866, 342.
HEMISAURIDA Kner, 1867, 346.
TYDEUS Sauvage, 1870, 359.
PARASCOPELUS Sauvage, 1873, 371.
Gymnoscopus Günther, 1873, 369.
Neoscopelus Castelnau, 1875, 378.
ICHTHYOTRINGA Cope, 1878, 394.
SCOPELOIDES Wettstein, 1886, 436.
Nannobranchium Günther, 1887, 438.
OMIODON Bassani, 1888, 440.
Scopelengys²³⁹ Alcock, 1890, 449.
Stenobranchius Eigenmann & Eigenmann, 1890, 450.
Catablemella E. & E., 1890, 450.
Diaphus E. & E., 1891, 454.
Tarletonbeania E. & E., 1891, 454.
Rhinoscopelus Lütken, 1892, 458.
Benthosema Goode & Bean, 1895, 467.
Collettia G. & B., 1895, 467.
Lampadena G. & B., 1895, 467.
Aëthoprora G. & B., 1895, 467.
Electrona²⁴⁰ G. & B., 1895, 467.
NEMATONOTUS Woodward, 1899, 488.
Centrobranchus Fowler, 1904, 507.
Scopelopsis²⁴¹ Brauer, 1906.
Protoblepharon Steche, 1909, 534.
Nyctimaster²⁴² Jordan, 1922.

²³⁸ Misprinted *Opistopteryx*.

²³⁹ Misprinted *Scopelogenys* in *Zoological Record* and in "Genera of Fishes."

²⁴⁰ "Oceanic Ichthyology," 91; orthotype *Scopelus rissoi* Cocco. (Omitted in "Genera of Fishes.")

²⁴¹ "Die Tiefseefische," 146; type *S. multipunctatus* Brauer. (Omitted in "Genera of Fishes.")

²⁴² *Proc. U. S. Nat. Mus.*, 645, 1921; orthotype *Lampanyctus jordani* Gilbert.

Family 279. **IPNOPIDÆ**

Ipnops Günther, 1878, 395.

Family 280. **OMOSUDIDÆ**

Omosudis Günther, 1887, 438.

Family 281. **MALACOSTEIDÆ**

Malacosteus Ayres, 1849, 240.

Bathylchnus Brauer, 1902, 497.

Family 282. **PLAGYODONTIDÆ** (*Alepisauridæ*)
(Hand-saw Fishes)

*Plagyodus*²⁴⁸ (Steller) Pallas, 1811, 84.
Alepisaurus Lowe, 1833, 179.
ISTIEUS Agassiz, 1844, 219.
Caulopus Gill, 1862, 314.

Plagyodus (Steller) Günther, 1867, 345.
APATEODUS Woodward, 1901, 496.
Eugnathosaurus Regan, 1913, 550.

²⁴⁸ This name has been questioned as appearing in an oblique case only, as "*Plagyodontem*."

Suborder **CETUNCULI**
(New suborder)

The two families which follow are quite distinct from the other *Iniomi*, doubtless forming a separate suborder among the deep-sea fishes.

Family 283. **RONDELETIIDÆ**

Rondeletia Goode & Bean, 1894, 465.

Family 284. **CETOMIMIDÆ**

Cetomimus Goode & Bean, 1894, 465.
Cetostoma Zugmayer, 1914, 555.

Pelecinomimus Gilchrist, 1922. (See Index.)

Suborder **CHONDRICHTHYES**

A curious group of very uncertain relationships.

Family 285. **ATELEOPODIDÆ**

Ateleopus Temminck & Schlegel, 1846, 230.
Podateles Boulenger, 1902, 497.

Ijimaia Sauter, 1905, 516.
Parateleopus Smith & Radcliffe, 1912, 544.

Order XENOMI

Family 286. **DALLIIDÆ**
(Alaska Black-fish)

Dallia Bean, 1879, 398.

Order HAPLOMI

The *Haplomi* are nearly related to the *Isospondyli*, although lacking the mesocoracoids characteristic of the latter order and of the *Ostariophysi*. Externally they have much in common with the *Microcyprini* or *Cyprinodontes*, with which most writers have united them. The maxillary, however, continues, as in the *Isospondyli*, to form the side of the upper jaw, but in the *Haplomi*, as in all the families which follow in this linear series, it ceases to bear teeth, and is gradually relegated to a subordinate position. It would appear therefore that the *Haplomi* and *Cyprinodontes* are actually rather closely related, though definable as separate orders or suborders. The *Xenomi* are doubtless near the *Haplomi*, but are quite as distinct from the latter as the *Cyprinodontes*.

The following remarks of Jordan & Evermann ("Fish. N. M. Am.," I, 623) are still pertinent: "While our knowledge of the osteology and embryology of most of the families of fishes is very incomplete, it is evident that the relationships of the groups can not be shown in any linear series, or by any conceivable arrangement of orders and suborders. The living teleost fishes have sprung from many lines of descent, their relationships are extremely diverse, and their differences are of every possible degree of value. The ordinary schemes have magnified the importance of a few common characters, at the same time neglecting other differences of equal importance. No system of arrangement which throws these fishes into large groups can ever be definite or permanent."

Family 287. CROSSOGNATHIDÆ

CROSSOGNATHUS Pictet & Lorient, 1859,
292.

APSOPELIX Cope, 1871, 360.
PELYCORAPIS²⁴⁴ Cope, 1874, 375.

²⁴⁴ Misprinted *Pelecorapis*.

Family 288. ESOCIDÆ (*Luciidae*) (Pikes)

Esox²⁴⁵ Linnæus, 1758, 14.
Lucius Geoffroy, 1767, 24.
Lucius Klein, 1775, 40.
Lucius Rafinesque, 1810, 80.

*Picorellus*²⁴⁶ Rafinesque, 1820, 112.
Mascalongus Jordan, 1878, 396.
Kenoza Jordan & Evermann, 1896, 473.

²⁴⁵ This use of *Esox* follows the decision of the International Commission of Zoological Nomenclature. The name has been also employed in place of *Belone*.

²⁴⁶ A mythical pickerel.

Family 289. UMBRIDÆ (Mud Minnows)

Umbra (Kramer) Gronow, 1763, 20.
Umbra (Gronow) Scopoli, 1777, 42.

Melanura Agassiz, 1853, 252.

Order CYPRINODONTES (*Microcyprini*)

The *Microcyprini* or *Cyprinodontes* have been usually placed in one or two families. It seems to us that more should be recognized. These fishes bear considerable resemblance to the *Haplomi*, with which group they have usually been united. But the structure of the mouth is quite different, the premaxillary forming the whole side of the upper jaw, the toothless maxillary lying above it as a sort of secondary bone, as in all the percoid fishes. The posterior insertion of the dorsal fin is characteristic of both groups as well as of most of the *Synentognathi*, far from which they should not be placed in a natural system.

Hitherto the viviparous and oviparous Cyprinodonts have been placed in a single family, but the differences within the group are extensive and if the species were not all of small size they would certainly be assigned to two or more family groups. As here understood, the oviparous species, with the anal fin not modified in the male, constitute the family of *Cyprinodontidae*.

Family 290. **CYPRINODONTIDÆ**
(Killifishes)

The *Fundulina*, with pointed teeth, and the *Cyprinodontina*, with the teeth incisor-like, form a natural family widely diffused in the North Temperate Zone.

Fundulus Lacépède, 1803, 65.

*Hydrargira*²⁴⁷ Lacépède, 1803, 67.

Cyprinodon Lacépède, 1803, 68.

Prinodon Rafinesque, 1815, 90.

*Lebia*²⁴⁸ (Cuvier) Oken, 1817, 99.

Aphanius Nardo, 1827, 121.

*Aplocheilus*²⁴⁹ McClelland, 1839, 195.

Panchax Cuvier & Valenciennes, 1846, 407.

Encrotes Gistel, 1848, 236.

Zygonectes Agassiz, 1853, 252.

Tellia Gervais, 1853, 253.

Fundulichthys Bleeker, 1859, 288.

Adinia Girard, 1859, 290.

Lucania Girard, 1859, 290.

Micromugil Gulia, 1861, 307.

Rivulus Poey, 1860, 299.

Aplocheilichthys Bleeker, 1861, 321.

*Lebistes*²⁵⁰ de Filippi, 1862.

Micristius Gill, 1865, 337.

Lycocyprinus Peters, 1868, 353.

Nothobranchius Peters, 1868, 353.

PROBLEBIAS Sauvage, 1874, 376.

Pachystetus (Aymard) Sauvage, 1874, 376.

Cynolebias Steindachner, 1876, 387.

Xenisma Jordan, 1877, 390.

Jordanella Goode & Bean, 1879, 399.

Borborys (Broussonet) G. & B., 1885, 432.

GEPHYRURA Cope, 1891, 454.

PROBALLOSTOMUS Cope, 1891, 454.

Neolebias Steindachner, 1894, 465.

Pterolebias Garman, 1895, 467.

Fontinus Jordan & Evermann, 1896, 473.

PACHYLEBIAS Woodward, 1901, 496.

Procatopus Boulenger, 1904, 506.

Oryzias Jordan & Snyder, 1906, 519.

Mohanga Boulenger, 1911, 538.

Lamprichthys Regan, 1911, 540.

Galasaccus Fowler, 1916, 559.

Chriopeops Fowler, 1916, 559.

Oxyzygonectes Fowler, 1916, 559.

PARAFUNDULUS Eastman, 1917, 561.

²⁴⁷ Usually corrected to *Hydrargyra*.

²⁴⁸ Later spelled *Lebias*.

²⁴⁹ Later corrected to *Haplochilus*.

²⁵⁰ *Archiv. Zool. Anat.*, etc., 1: 69; orthotype *L. pæciloides* de Filippi. (Omitted in "Genera of Fishes.")

Family 291. **ORESTIIDÆ**

This little group comprises allies of *Fundulus*, which have the lower pharyngeals enlarged and provided with molar teeth. The ventral fins are wanting. The family, probably once more widely diffused, is now confined to Lake Titicaca and to the desert streams about Death Valley, Nevada.

Orestias Cuvier & Valenciennes, 1846, 228. *Empetrichthys* Gilbert, 1893, 461.

Family 292. CHARACODONTIDÆ

This family and the next include those viviparous Cyprinodonts in which the first rays of the male are somewhat modified but not transformed into an intromittent organ.

Characodon Günther, 1866, 340.

Zoogoneticus Meek, 1902, 500.

Family 293. GOODEIDÆ

Girardinichthys Bleeker, 1860, 294.

Xenendum Jordan & Snyder, 1899, 487.

Limnurgus Günther, 1866, 340.

Skiffia Meek, 1902, 500.

Goodea Jordan, 1879, 400.

Chapalichthys Meek, 1902, 500.

Family 294. PÆCILIDÆ

(Top Minnows)

This family includes provisionally those viviparous Cyprinodonts having the anal fin modified into an intromittent organ. All the *Pæciliidæ* are confined to warmer parts of America. It is possible that the family should be further subdivided. The *Anablepinæ* with "four eyes" (the eye crossed by a partition) and the *Gambusiinæ* with teeth as in the *Fundulinæ*, may well be detached on account of differences in dentition. In the *Pæciliinæ* the teeth are slender and movable, while in the *Gambusiinæ* they are conic and fixed as in the *Fundulinæ*. The name *Pæciliidæ* is probably sufficiently distinct from *Pæcilidæ*, a family of beetles.

Pæcilia Bloch & Schneider, 1801, 59.

Paragambusia Meek, 1904, 510.

Mollienesia Le Sueur, 1821, 114.

Acanthophaelus Eigenmann, 1907, 522, 533.

Alazon Gistel, 1848, 237.

Ilyodon Eigenmann, 1907, 522.

Xiphophorus Heckel, 1848, 238.

Phalloptychus Eigenmann, 1907, 522, 559.

Heterandria Agassiz, 1853, 251.

Phalloceros Eigenmann, 1907, 522.

PÆCILOPS Pomel, 1853, 254.

Petalosoma²⁸² Regan, 1908, 530.

Limia Poey, 1854, 261.

Tomeurus Eigenmann, 1909, 533.

Gambusia Poey, 1854, 260.

Alfaro Meek, 1912, 544.

Girardinus²⁸¹ Poey, 1854, 261.

Cynopæcilus Regan, 1912, 545.

Belonesox Kner, 1859, 292, 298.

Petalurichthys Regan, 1912, 545.

Pseudoxiphophorus Bleeker, 1859, 287.

Gulapinnus Langer, 1913, 549.

Hemixiphophorus Bleeker, 1859, 288.

Priapichthys Regan, 1913, 550.

Trifarcus Poey, 1860, 299.

Pseudopæcilia Regan, 1913, 550.

Limia Poey, 1861, 308.

Priapella Regan, 1913, 550.

Pæcilodes Steindachner, 1863, 328.

Pæcilopsis Regan, 1913, 550.

Platypæcilus Günther, 1866, 341.

Brachyrhaphis Regan, 1913, 550.

Acropæcilia Hilgendorf, 1889, 447.

Leptorhaphis Regan, 1913, 550.

Glaridodon Garman, 1895, 467.

Pamphoria Regan, 1913, 550.

Cnestrodon Garman, 1895, 467.

Pamphorichthys Regan, 1913, 550.

Gambusinus Jordan & Evermann, 1896, 473.

Heterophallus Regan, 1914, 555.

Glaridichthys Garman, 1896, 471.

Diphyacantha Henn, 1916, 559.

Toxus Eigenmann, 1903, 501.

Phallatorhynus Henn, 1916, 559.

Cynodonichthys Meek, 1904, 510.

Neoheterandria Henn, 1916, 559.

²⁸¹ According to Garman this genus is distinct from *Heterandria*.

²⁸² Misprinted *Palosoma* in Dean's "Bibliography of Fishes."

Family 295. **FITZROYIIDÆ***Fitzroyia* Günther, 1866, 340.*Jenynsia* Günther, 1866, 341.Family 296. **ANABLEPIDÆ**

(Quatro Ojos)

Anableps Gronow, 1763, 20.*Anableps* (Gronow) Bloch & Schneider,*Anableps* (Gronow) Scopoli, 1777, 42.

1801, 59.

Family 297. **PHALLOSTETHIDÆ***Phallostethus* Regan, 1913, 550.*Neostethus* Regan, 1916, 560.Family 298. **AMBLYOPSIDÆ**

(Cave Blind Fishes)

Amblyopsis Dekay, 1842, 210.*Typhlichthys* Girard, 1859, 290.*Chologaster* Agassiz, 1853, 251.*Troglichthys* Eigenmann, 1899, 485.Family 299. **ADRIANICHTHYIDÆ***Adrianichthys* Weber, 1913, 552.*Xenopœcilus* Regan, 1911, 540.Order **SYNENTOGNATHI**Family 300. **FORFICIDÆ***FORFEX* Jordan, 1919, 568.*ZELOTES*²⁸³ Jordan, 1921.²⁸³ "Fossil Fish. S. Cal.," 36; orthotype *Z. alhambra* Jordan.Family 300A. **ROGENIIDÆ***ROGENIO* Jordan, 1907, 525.Family 301. **XENESTHIDÆ**

The genus *Xenesthes* is based on a long and strong premaxillary bone, seven inches in length, armed anteriorly with a row of large teeth. The toothless maxillary is apparently united with this bone. As the *Ichthyodecidae* have the premaxillary short, forming the front only of the edge of the upper jaw, *Xenesthes* can not be allied to them. It is perhaps near the *Belonidae*, although the type specimen shows none of the small teeth characteristic of the latter, and the snout could not have been attenuate. It bears also a certain resemblance to *Plagyodus*, but in the latter the bones are soft and smooth, while in *Xenesthes* they are rigid and rough.

XENESTHES Jordan, 1907, 524.Family 302. **BELONIDÆ**

(Hound Fishes; Needle Fishes)

Mastacembelus Klein, 1775, 40.*Tylosurus* Cocco, 1833, 178.*Raphistoma*²⁸⁴ Rafinesque, 1815, 91.*Ramphistoma* Swainson, 1839, 203.*Belone* Cuvier, 1817, 99.*Potamorhaphis* Günther, 1866, 340.*Strongylura*^{284a} Van Hasselt, 1824.*Athlennes* Jordan & Fordice, 1886, 435.²⁸⁴ Written *Ramphistoma* by authors.^{284a} *Bull. Sci. Nat. Ferussac*, 2: 374; orthotype *Strongylura caudimaculata* Van Hasselt = *Belone strongylura* Van Hasselt, 1823. (Omitted in "Genera of Fishes.")

Ablennes J. & F., 1886, 435.
Eurycaulus Ogilby, 1908, 529.
Stenocaulus Ogilby, 1908, 529.
Xenentodon Regan, 1911, 540.

Petalichthys²⁶⁵ Regan, 1911.
Platybelone^{265a} Fowler, 1919.
Tropidocaulus Ogilby, 1919, 569.
BELTION Jordan, 1920, 571.

²⁶⁵ *Ann. Mag. Nat. Hist.*, 332; orthotype *P. capensis* Regan. (Omitted in "Genera of Fishes.")

^{265a} *Proc. Acad. Nat. Sci. Phila.*, 71: 2; orthotype *Belone platyura* Bennett (same as *Tropidocaulus* of slightly later date).

Family 303. **SCOMBERESOCIDÆ** (Sauries)

Scomberesox²⁶⁶ Lacépède, 1803, 67.
Sayris Rafinesque, 1810, 81.
Grammiconotus Achille Costa, 1862, 312.

Cololabis Gill, 1896, 473.
SCOMBERESSUS Jordan, 1920, 571.

²⁶⁶ Often written *Scombresox*.

Family 304. **HEMIRAMPHIDÆ** (Half-beaks)

Hemi-Ramphus²⁶⁷ Cuvier, 1817, 99.
Dermogenys²⁶⁸ Van Hasselt, 1823, 172.
COBITOPSIS Pomel, 1853, 254.
Hyporhamphus Gill, 1859, 289.
Euleptorhamphus Gill, 1859, 289, 326.
Zenarchopterus Gill, 1863, 326.
Oxyporhamphus Gill, 1863, 326.
Hemirhamphodon Bleeker, 1866, 340.
Arrhamphus Günther, 1866, 340.
HEMILAMPONITES Geinitz, 1868, 350.

Chriodorus Goode & Bean, 1882, 419.
Hemioxocætus Fowler, 1901, 493.
Labidorhamphus Fowler, 1905, 513.
Eulepidorhamphus Fowler, 1919.
ROGENITES Jordan, 1919, 568.
ZELOSIS Jordan & Gilbert, 1920, 571.
Rhamphodermogenys²⁶⁹ Fowler & Bean, 1922.
Nomarhamphus Weber, 1922 (See Index A).

²⁶⁷ Usually spelled *Hemirhamphus*.

²⁶⁸ Spelled *Dermatogenys* by Bleeker.

^{268a} *Loc. cit.*, 7; orthotype *Hemirhamphus sajori* Schlegel.

²⁶⁹ Fowler & Bean, "Fishes of Formosa and the Philippine Islands," *Proc. U. S. Nat. Mus.*, 152: 17; orthotype *Dermogenys bakeri* Fowler & Bean.

Family 305. **EXOCÆTIDÆ** (Flying Fishes)

Exocætus Linnæus, 1758, 15.
Hirundo Catesby, 1771, 30.
Pterichthys (Commerson) Lacépède, 1803, 71.
Cypselurus²⁶⁹ Swainson, 1839, 203.
Cheilopogon Lowe, 1840, 207.
Ptenichthys Müller, 1843, 216.

Halocypselus Weinland, 1858, 284.
Parexocætus Bleeker, 1866, 340.
Fodiator Jordan & Meek, 1885, 433.
Exonautes Jordan & Evermann, 1896, 472.
Evolantia Heller & Snodgrass, 1903, 503.
Ptenonotus Ogilby, 1908, 529, 554.

²⁶⁹ Spelled *Cypsilurus* by misprint, as decided by the International Commission of Nomenclature.

Order ANACANTHINI

This large group, usually associated with the blennies and brotulids on the one hand and the flounders on the other, is quite distinct from both. Its origin and relationship are obscure. The absence of fin spines and the frequent presence of more than five ventral rays indicate its descent from some early type in which the ventral rays have not been reduced to I, 5, the normal number in percomorphous fishes, and no spines have developed in the fins. The anterior position of the ventrals separate these fishes from the forms with a duct to the air bladder, *Physostomi*, *Malacopteri*, *Ostariophysii*, *Isospondyli*, etc. Regan suggests their possible derivation from allies of *Aulopidae* or other primitive *Iniomi*.

Family 306. MACROUROIDIDÆ

Macrouroides Smith & Radcliffe, 1912,
544.

Squalogadus Gilbert & Hubbs, 1916, 559.

Family 307. MACROURIDÆ (*Coryphænoididæ*; *Macruridæ*) (Grenadiers; Rat-tails)

Coryphænoides Gunner, 1761, 16.

*Macrourus*²⁶¹ Bloch, 1786, 44.

*Trachyrincus*²⁶² Giorna, 1805, 74, 407.

Cœlorhynchus Giorna, 1805, 74.

Lepidoleprus Risso, 1810, 77.

Oxycephas Rafinesque, 1810, 79.

Krohnus Cocco, 1844, 219.

Coccolus (Kaup) Bonaparte, 1844, 219,
226, 284.

Lepturus Gronow, 1854, 259.

Malacocephalus Günther, 1862, 318.

Macruronus Günther, 1872, 365.

Macruroplus Bleeker, 1874, 372.

Paramacrurus Bleeker, 1874, 372.

Oxymacrurus Bleeker, 1874, 372.

*Bathygadus*²⁶³ Günther, 1878.

Lepidorhynchus Bleeker, 1879, 398.

*Chalinura*²⁶⁴ Goode & Bean, 1882, 419.

Hymenocephalus Giglioli & Issel, 1884,
575.

Trachonurus Günther, 1887, 437.

Lionurus Günther, 1887, 437.

Mystacourus Günther, 1887, 437.

Optonurus Günther, 1887, 437.

Nematonurus Günther, 1887, 437.

Cetonurus Günther, 1887, 437.

Lyconus Günther, 1887, 437.

Steindachneria Goode & Bean, 1888, 441.

Abyssicola Goode & Bean, 1895, 468.

Moseleya Goode and Bean, 1895, 468.

Steindachnerella Eigenmann, 1897, 476.

Cœlocephalus Gilbert & Cramer, 1897,
477.

Albatrossia Jordan & Gilbert, 1898, 482.

Bogoslovius J. & E., 1898, 482.

Matæocephalus Berg, 1899, 484.

Dolloa Jordan, 1900, 489.

Gadomus Regan, 1903, 505.

Melanobranchus Regan, 1903, 505.

Nezumia Jordan & Gilbert, 1904, 509.

Regania Jordan & Gilbert, 1904, 509.

Cynomacrurus Dollo, 1909, 532.

*Ateleobranchium*²⁶⁵ Gilbert & Burke, 1912,
543.

Echinomacrurus Roule, 1916, 560.

Lyconodes Gilchrist, 1922. (See Index.)

²⁶¹ Usually corrected as *Macrurus*.

²⁶² Usually corrected to *Trachyrhynchus*.

²⁶³ *Ann. Mag. Nat. Hist.*, 23; orthotype *Bathygadus cottoides* Günther. (Omitted in "Genera of Fishes.")

²⁶⁴ Written *Chalinurus* by Günther.

²⁶⁵ *Bull. U. S. Bur. Fish.*, 30: 94, 1912. (Erroneously given in "Genera of Fishes.")

- Hyomacrus** Gilbert & Hubbs, 1920.
(See Index.)
Hyostomus Gilbert & Hubbs, 1920, 570.
Atherodon G. & H., 1920, 570.
Ventrifossa G. & H., 1920, 570.
Papyrocephalus G. & H., 1920, 570.

- Quincuncia** G. & H., 1920, 570.
Hymenogadus G. & H., 1920, 570.
Oxygadus G. & H., 1920, 570.
Lucigadus G. & H., 1920, 570.
Lucigadella G. & H., 1920, 570.

Family 308. **BREGMACEROTIDÆ**

- Bregmaceros** (Cantor) Thompson, 1840,
208.
Calloptilum Richardson, 1844, 222.

- Asthenurus** Tickell, 1865, 339.
Auchenoceros Günther, 1889, 447.

Family 309. **GAIDROPSARIDÆ**

(Rocklings)

- Enchelyopus** Bloch & Schneider, 1801, 57.
Gaidropsarus Rafinesque, 1810, 81.
Dropsarus Rafinesque, 1815, 88.
Onos Risso, 1826, 119.
Motella Cuvier, 1829, 131.

- Ciliata** Couch, 1832, 176.
Couchia Thompson, 1856, 274.
Molvella Kaup, 1858, 281.
Rhinonemus Gill, 1863, 325.

Family 310. **GADIDÆ**

(Cod-fishes)

- Gadus** Linnæus, 1758, 12.
Callarias Klein, 1777, 42.
Phycis Röse, 1793, 51.
Phycis Bloch & Schneider, 1801, 58.
Phycis Rafinesque, 1810, 79.
Strinsia Rafinesque, 1810, 81.
Eleginus Fischer, 1813, 85.
Trisopterus Rafinesque, 1814, 87.
Morrhua (Cuvier) Oken, 1817, 100.
Merlangus (Cuvier) Oken, 1817, 100.
Raniceps (Cuvier) Oken, 1817, 100.
Lota (Cuvier) Oken, 1817, 100.
Mustela (Cuvier) Oken, 1817, 100.
Brosme³⁰⁰ (Cuvier) Oken, 1817, 100.
Lotta Risso, 1826, 119.
Morua Risso, 1826, 119.
Mora Risso, 1826, 119.
Molva Fleming, 1828, 122.
Brosmus Stark, 1828, 123.
Tilesia Swainson, 1839, 203.
Cephus Swainson, 1839, 203.
Lepidion Swainson, 1839, 203.
Gadella Lowe, 1843, 215.
NEMOPTERYX Agassiz, 1844, 219.
Asellus Valenciennes, 1844, 223.
Merlinus Agassiz, 1845, 224.

- Pollachius** (Nilsson) Bonaparte, 1845,
226.
Gastronemus Bonaparte, 1845, 226.
Tinimogaster Bonaparte, 1845, 226.
Uraleptus Costa, 1846, 574.
Cerdo Gistel, 1848, 235.
Gadiculus Guichenot, 1850, 246.
Lotella Kaup, 1858, 281.
Physiculus Kaup, 1858, 281.
Uraleptus Costa, 1858, 279.
Pteridium Filippi & Verany, 1859, 289.
PALÆOBROSMIUS Rath, 1859, 292.
PALÆOGADUS Rath, 1859, 292.
Hypsiptera Günther, 1860, 297.
Algoa Castelnau, 1861, 301.
Melanogrammus Gill, 1862, 316.
Brachygadus Gill, 1862, 316.
Læmonema Günther, 1862, 318.
Pseudophycis Günther, 1862, 318.
Halargyreus Günther, 1862, 318.
Boreogadus Günther, 1862, 318.
Haloporphyrus Günther, 1862, 318.
Urophycis Gill, 1863, 325.
Micromesistius Gill, 1863, 325.
Brachygadus Gill, 1863, 325.
Leptogadus Gill, 1863, 325.

³⁰⁰ Later written *Brosmius* by Cuvier.

Odontogadus Gill, 1863, 325.
Microgadus Gill, 1863, 325.
Æglefinus Malm, 1877, 391.
Antimora²⁶⁷ Günther, 1878.
Melanonus Günther, 1878, 394.
Pleurogadus Bean, 1885, 433.
Salilota Günther, 1887, 437.
Brosmiculus Vaillant, 1888, 444.
Sympodoichthys Facciola, 1888, 441.
Austrophycis Ogilby, 1897, 477.
Emphycus Jordan & Evermann, 1898, 481.
Theragra Lucas, 1898, 481.
Microlepidium Garman, 1899, 486.

Leptophycis Garman, 1899, 486.
RHINOCEPHALUS (Agassiz) Woodward,
 1901, 223.
Tripterophycis Boulenger, 1902, 497.
Melanonosoma Gilchrist, 1902, 498, 501.
Læmonemodus Gilchrist, 1903, 503.
Gargilius²⁶⁸ (Jensen) Schmidt, 1906.
ARNOLDINA Jordan & Gilbert, 1919, 569.
ECLIPES J. & G., 1919, 569.
MERRIAMINA J. & G., 1919, 569.
Verater Jordan, 1919, 567.
ARNOLDITES²⁶⁹ Jordan, 1923.

²⁶⁷ *Ann. Mag. Nat. Hist.*, 2: 18; orthotype *A. rostrata* Günther. (Omitted in "Genera of Fishes.")

²⁶⁸ *Gargilius* (Jensen, Adolf Severien) Schmidt (Ernest Johannes), "Contrib. Life Hist. Eel," 177, 1906; no description and no specific name given; a small deep-water gadoid. (See Holt & Byrne, *Fish. Ireland Invest.*, 5: 58.)

²⁶⁹ A new generic name to replace *Arnoldina*, preoccupied in *Unionidæ* (Hannibal, 1917).

Family 311. MERLUCCIIDÆ

(Hakes)

Merluccius²⁷⁰ Rafinesque, 1810, 79.
Onus Rafinesque, 1810, 81.
Merlangus Rafinesque, 1810, 83.
Stomodon Mitchill, 1814, 86.
Hydronus Minding, 1832, 176.

Merlus Guichenot, 1848, 238.
Merlucius Gronow, 1854, 259.
Homalopomus Girard, 1856, 269.
Epicopus Günther, 1860, 296.

²⁷⁰ Often spelled *Merlucius*.

Family 312. MURÆNOLEPIDÆ

Murænolepis Günther, 1880, 403.

Family 313. ERETMOGRAPHIDÆ

Hypsirhynchus Facciola, 1884, 427, 468. **Eretmographus** Giglioli, 1889, 446.

Order SALMOPERCÆ

Adipose fin present; dorsal fin with spines.

The *Salmoperca* and *Xenarchi* are detached fragments of a lost fresh water fauna of the Cretaceous or Eocene. They are closely related to each other, but neither has much affinity with other known fishes. The several orders which follow are often spoken of as *transitional* between soft-rayed and spiny-rayed fishes. The word is misleading. More accurately they are diverging offshoots from transitional forms now extinct; no linear series can express their varied relations, their line of evolution in some cases leading distinctly downward, that is, toward less

than ancestral specialization. Some groups as the *Percesoces* that seem to lead upward toward the *Percoidei* may really be declining downward from perch-like ancestry.

In general the forward movement is marked by the development of spines in the fins, the thoracic attachment of the ventral fins, the reduction in the number of ventral rays to six, the first being normally spinous, the loss of the mesocoracoid, the relegation of the maxillary to a subordinate position in the upper jaw, the roughening of the scales, the obliteration of the duct to the air bladder, with a number of minor characters. These transitions do not appear uniformly, and they are sometimes disguised by special traits of degeneration among the varied groups naturally regarded as Acanthopterygians or spiny-rayed. But nowhere in the vast range of variety among fishes is it possible to arrange a linear series which shall express the actual fact. The most one can do is keep up a sort of marching abreast from the *Ganoids*, through the *Isospondyli* and transitional types to the specialized *Acanthopteri* and their peculiar offshoots. In this group and the next, which is closely related, the pneumatic duct is obsolete; dorsal and anal each with a few spines; ventral rays more than five.

Family 314. **PERCOPSIDÆ**

(Sand Rollers; Trout Perch)

Adipose fin present; ventrals subabdominal, without spine.

Percopsis Agassiz, 1848, 232.

Columbia Eigenmann, 1892, 457.

Salmoperca Thompson, 1851, 249.

Order **XENARCHI**

Adipose fin wanting; ventrals subthoracic, with a spine.

Family 315. **APHREDODERIDÆ**

(Pirate Perch)

*Aphredoderus*²⁷¹ Cuvier & Valenciennes,
1833, 178.

Sternotremia Nelson, 1876, 386.

Asternotremia Nelson, 1877, 390.

ERISMATOPTERUS Cope, 1870, 356.

AMPHIPLAGA Cope, 1877, 388.

TRICHOPHANES Cope, 1872, 364.

²⁷¹ Corrected to *Aphododerus* and *Aphrodedirus* by authors.

Family 316. **ASINEOPIDÆ**

ASINEOPS Cope, 1872, 356.

Order **ALLOTRIOGNATHI**

Suborder **HISTICHTHYES**

Family 317. **VELIFERIDÆ**

Velifer Temminck & Schlegel, 1850, 247.

Family 318. **LOPHOTIDÆ****Lophotes** Giorna, 1805, 74.**Podoleptus** Rafinesque, 1815, 92.**Leptopus** Rafinesque, 1814, 86.**Eumecichthys**²⁷² Regan, 1907.

²⁷² *Proc. Zool. Soc. Lond.*, 638, 1907; orthotype *Lophotes fiskii* Günther. (Omitted in "Genera of Fishes.")

Suborder **TAENIOSOMI**Family 319. **REGALECIDÆ**

(Oar Fishes; Sea Serpents)

Regalecus Brünnich, 1771, 28.**Xypterus** Rafinesque, 1810, 82.**Regalecus** Ascanius, 1788, 45.**Epidesmus** Ranzani, 1818, 107.**Gymnetrus** Bloch, 1788, 45.**Xiphichthys** Swainson, 1839, 201.**Cephalepis** Rafinesque, 1810, 82.Family 320. **TRACHIPTERIDÆ**

(King-of-the-Herring)

Trachipterus²⁷³ Gouan, 1770, 28.**Nemochirus** Rafinesque, 1815, 86, 407.**Gymnogaster** Brünnich, 1788, 168.**Nemotherus** Costa, 1834, 180.**Bogmarus** Bloch & Schneider, 1801, 60.**Vogmarus** Reid, 1849, 244.**Argyctius** Rafinesque, 1810, 80.

²⁷³ Usually corrected to *Trachypterus*.

Suborder **ATELAXIA**Family 321. **STYLEPHORIDÆ****Stylephorus** Shaw, 1791, 50.Family 322. **GIGANTURIDÆ****Gigantura** Brauer, 1901, 492.**Order SELENICHTHYES**

Ventrals many-rayed; basal bones of pectoral set horizontally; humeral arch and pelvic bones enormously enlarged; body very deep, compressed.

Family 323. **LAMPRIDÆ**

(Opah; Moon-fish)

Lampris Retzius, 1799, 54.**DIATOMÆCA** Jordan & J. Z. Gilbert, 1919,**Chrysotosus** Lacépède, 1803, 65.

569.

Echemythes Gistel, 1848, 235.Family 324. **SEMIOPHORIDÆ****SEMIOPHORUS** Agassiz, 1838, 191.**Order HETEROSOMATA**

(Flounders; Flat Fishes)

Both eyes on the same side of the body.

The flounders and soles, having no spines and the ventral fins thoracic

with an increased number of rays, should not be placed far from the percomorphous series. Boulenger suggests that the group may have close affinities with the *Amphistiidae* and *Zeidae*, constituting with these the order *Zeorhombi*. This view of the case is plausible, but it is far from established.

Family 325. PSETTODIDÆ

Psettodes Bennett, 1830, 174.

Sphagomorus Cope, 1867, 344.

Family 326. BOTHIDE

Solea Catesby, 1771, 31.

Psetta Klein, 1775, 38.

Europus Klein, 1775, 38.

Rhombus Klein, 1775, 38.

Citharus Röse, 1793, 52.

Bothus Rafinesque, 1810, 79.

Scophthalmus Rafinesque, 1810, 82.

Rhombus Cuvier, 1817, 100.

Rhomboides Goldfuss, 1820, 171.

Zeugopterus Gottsche, 1835, 182.

Citharus Reinhardt, 1838, 193.

Psetta Swainson, 1839, 203.

Platophrys Swainson, 1839, 203.

Syacium Ranzani, 1840, 207.

Peloria Cocco, 1844, 219.

Passer Valenciennes, 1855, 266.

Rhomboidichthys Bleeker, 1856, 267.

Lophopsetta Gill, 1861, 303, 331.

Citharus Bleeker, 1862, 310.

Hemirhombus Bleeker, 1862, 310.

Citharichthys Bleeker, 1862, 310.

Arnoglossus Bleeker, 1862, 310.

Orthopsetta Gill, 1862, 317.

Engyprosopon Günther, 1862, 319.

Phrynorhombus Günther, 1862, 319.

Lepidorhombus Günther, 1862, 319.

Metoponops Gill, 1864, 331.

*Bascanius*²⁷⁴ Schiödt, 1868, 353.

Nematops Günther, 1880, 403.

Lophonectes Günther, 1880, 403.

Monolene Goode, 1880, 403.

Thyris Goode, 1880, 403.

Anticitharus Günther, 1880, 403.

Læops Günther, 1880, 403.

Thysanopsetta Günther, 1880, 403.

Lepidopsetta Günther, 1880, 403.

Etropus Jordan & Gilbert, 1881, 416.

Lophorhombus Macleay, 1882, 421.

Delothyris Goode, 1883, 424.

Charybdia Facciola, 1885, 431.

Aramaca Jordan & Goss, 1885, 433.

Cyclopsetta Gill, 1888, 441.

Azevia Jordan & Goss, 1888, 442.

Eucitharus Gill, 1888, 441.

Trichopsetta Gill, 1888, 441.

Engyophrys Jordan & Bollman, 1889, 447.

Psettylis Alcock, 1890, 450.

Scianectes Alcock, 1890, 450.

Caulopsetta Gill, 1893, 461.

Chascanopsetta Alcock, 1894, 463.

Embassichthys Jordan & Evermann, 1896, 475.

Boopsetta Alcock, 1896, 470.

Pelecianichthys Gilbert & Cramer, 1897, 477.

Perissias Jordan & Evermann, 1898, 481.

Apsetta Kyle, 1900, 490.

*Scæops*²⁷⁵ Jordan and Starks, 1904.

Tæniopsetta Gilbert, 1905, 513.

Mancopsetta Gill, 1905, 514.

Lambdopsetta Smith & Pope, 1906, 520.

*Trachypterophrys*²⁷⁶ Franz, 1910.

Plagiopsetta Franz, 1910, 535.

*Laiopteryx*²⁷⁷ Weber, 1913, 551.

²⁷⁴ An undetermined larva.

²⁷⁵ *Scæops* Jordan & Starks, *loc. cit.*, 623; orthotype *Rhombus grandisquama* Temminck & Schlegel.

²⁷⁶ *Op. cit.*, 60; orthotype *P. raptator* Franz; a synonym of *Chascanopsetta* Alcock, according to McCulloch. (Omitted in "Genera of Fishes.")

²⁷⁷ Misprinted *Liopteryx* in "Genera of Fishes."

Pseudocitharichthys²⁷⁸ Weber, 1913.

Lepidoblepharon Weber, 1913, 551.

EOBOTHUS Eastman, 1914, 552.

Læoptichthys Hubbs, 1915, 556.

Citharoides Hubbs, 1915, 556.

Psettina Hubbs, 1915, 556.

Asterorhombus Tanaka, 1915, 558.

Scidorhombus Tanaka, 1915, 558.

ZORORHOMBUS Jordan, 1920, 571.

Paracitharus²⁷⁹ Regan, 1920.

Crossorhombus²⁸⁰ Regan, 1920.

Platotichthys²⁸¹ Nichols, 1921.

²⁷⁸ *Op. cit.* 413; orthotype *P. aureus* Weber. (Omitted in "Genera of Fishes.")

²⁷⁹ "A Review of the Flat Fishes (*Heterosomata*) of Natal," *Ann. Durban Museum*, 2: 209, March 25, 1920; type *Arnoglossus macrolepis* Günther.

²⁸⁰ Regan, *op. cit.*, 211; type *Platophrys dimorphus* Günther.

²⁸¹ "List of Turks Island Fishes," *Bull. Amer. Mus. Nat. Hist.*, 44: 21; orthotype *P. chartes* Nichols.

Family 327. PARALICHTHYIDÆ

(Bastard Halibuts)

To the *Bothidæ* Regan refers all sinistral or "left-handed" flounders. The genera named below, however, seem to me quite as closely related to the *Hippoglossidæ* as to *Bothus* and *Platophrys*. They may be allowed to stand as a separate transitional subfamily or family pending further investigation.

Paralichthys²⁸² Girard, 1859.

Chænopsetta Gill, 1861, 303.

Uropsetta Gill, 1862, 317.

Pseudorhombus Bleeker, 1862, 310.

Tephritis Günther, 1862, 318.

Tephrinectes Günther, 1862, 319.

Ancylosetta Gill, 1864, 331.

Neorhombus Castelnau, 1875, 378.

Hippoglossina Steindachner, 1876, 387.

Teratorhombus Macleay, 1881, 416.

Notosema Goode & Bean, 1882, 419.

Xystreurus Jordan & Gilbert, 1890, 451.

Lioglossina Gilbert, 1890, 451.

Verecundum Jordan, 1890, 452.

Gastropsetta Goode & Bean, 1894, 463.

Ramularia Jordan & Evermann, 1898, 481.

Rhombiscus Jordan & Snyder, 1900, 490.

EVESTHES J. Z. Gilbert, 1905, 536.

Velifracta Jordan, 1907, 524.

Tarphops Jordan & Thompson, 1914, 553.

²⁸² Omitted from No. 657, "Genera of Fishes"; orthotype *Paralichthys maculosus* Girard.

Family 328. HIPPOGLOSSIDÆ

(Halibuts)

Hippoglossus Cuvier, 1817, 100.

Hippoglossoides Gottsche, 1835, 182.

Reinhardtius Gill, 1861, 302.

Drepanopsetta Gill, 1861, 303.

Platysomatichthys Bleeker, 1862, 310.

Pomatopsetta Gill, 1864, 331.

Atheresthes Jordan & Gilbert, 1880, 404.

Eopsetta Jordan & Goss, 1885, 433.

Lyopsetta Jordan & Goss, 1885, 433.

Verasper Jordan & Gilbert, 1898, 481.

Cynopsetta Schmidt, 1903, 506, 519.

Xystrias²⁸³ Jordan & Starks, 1904.

Veræqua J. & S., 1904, 509.

Dexistes J. & S., 1904, 509.

Araias J. & S., 1904, 509.

Cleisthenes J. & S., 1904, 509.

Protopsetta Schmidt, 1904, 511.

Acanthopsetta Schmidt, 1904, 511.

²⁸³ *Loc. cit.*, 623; orthotype *Hippoglossus grigorjewi* Herzenstein. (Omitted in "Genera of Fishes.")

Family 329. **PLEURONECTIDÆ**

- Pleuronectes** Linnæus, 1758, 13.
Passer Klein, 1775, 38.
Platessa Cuvier, 1817, 100.
Microstomus Gottsche, 1835, 182.
Limanda Gottsche, 1835, 182.
Glyptocephalus Gottsche, 1835, 182.
Cynoglossus Bonaparte, 1837, 187.
Cynoglossa Bonaparte, 1845, 226.
Platichthys Girard, 1854, 257.
Psettichthys Girard, 1854, 257.
Parophrys Girard, 1854, 257.
Pleuronichthys Girard, 1854, 257.
Hypsopsetta Gill, 1862, 575, 317.
Lepidopsetta Gill, 1862, 575, 317.
Myzopsetta Gill, 1861, 308, 331.
Clidoderma Bleeker, 1862, 310.
Pseudopleuronectes Bleeker, 1862, 310.
Heteroprosopon Bleeker, 1862, 310.
Brachyprosopon Bleeker, 1862, 310.
Liopsetta Gill, 1864, 331.
Euchalarodus Gill, 1864, 331.
Pæcilopsetta Günther, 1880, 403.
Flesus Moreau, 1881, 416.
Isopsetta Lockington, 1882, 420.
Inopsetta Jordan & Goss, 1885, 433.
Kareius Jordan & Snyder, 1900, 490.
Alæops Jordan & Starks, 1904, 509.
Limandella Jordan & Starks, 1906, 519.
Gareus Hubbs, 1915, 556.
Pluviopsetta Tanaka, 1916, 560.
Tanakius Hubbs, 1918, 564.
Errex Jordan, 1919, 567.

Family 230. **SAMARIDÆ** (*Paralichthodidæ*)

- Samaris** Gray, 1831, 139.
Brachypleura Günther, 1862, 319.
Paralichthodes Gilchrist, 1902, 498.
Samariscus Gilbert, 1905, 513.

Family 331. **RHOMBOSOLEIDÆ**

- Psammodiscus** Günther, 1862, 319.
Rhombosolea Günther, 1862, 319.
Ammotretis Günther, 1862, 319.
Peltorhamphus Günther, 1862, 319.
Oncopterus Steindachner, 1875, 381.

Family 332. **ACHIRIDÆ**

Eyes and color dextral. Ventral of the right side continuous along the ridge of the abdomen and joined to the anal; caudal free from dorsal and anal.

- Achirus** Lacépède, 1803, 65.
Trinectes Rafinesque, 1832, 142.
Apionichthys Kaup, 1858, 282.
Soleotalpa Günther, 1862, 319.
Gymnachirus Kaup, 1858, 282.
Achiropsis Steindachner, 1876, 387.
Baiostoma Bean, 1882, 419.
Amate Jordan & Starks, 1906, 519.
Soleonassus Eigenmann, 1912, 543.
Pnictes Jordan, 1919, 567.

Family 333. **SOLEIDÆ**

(Soles)

Eyes and color dextral; caudal free from dorsal and anal, as are the ventral fins also.

- Solea** Klein, 1775, 40.
Solea Quensel, 1806, 74.
Solea Rafinesque, 1810, 81.
Odontolepis Fischer, 1813, 85.
Monochirus Rafinesque, 1814, 87.
Solea Cuvier, 1817, 100.
Monochirus (Cuvier) Oken, 1817, 100.
Leptosoma Nardo, 1827, 121.
Monochir Cuvier, 1829, 131.
Monochirus Bonaparte, 1837, 141, 187.
Microchirus Bonaparte, 1837, 187.
Spanius Gistel, 1848, 236.
Monochirus Kaup, 1858, 282.
Aseraggodes Kaup, 1858, 282.

Heteromycteris Kaup, 1858, 282.
Soleichthys Bleeker, 1860, 294.
Pegusa Günther, 1862, 319.
Microbuglossus Günther, 1862, 319.
Pardachirus Günther, 1862, 319.
Buglossus Günther, 1862, 319.
Liachirus Günther, 1862, 319.

Bowenia Haast, 1873, 369.
Quenselia Jordan, 1888, 442.
Pelotretis Waite, 1911, 541.
Phyllichthys McCulloch, 1916, 559.
Bathysolea Roule, 1916, 560.
*Eusolea*²⁸⁴ Roule, 1919.

²⁸⁴ New name, perhaps not intended as a generic name distinct from *Solea*. *Solea capellonis* Steindachner the only species mentioned.

Family 334. SYNAPTURIDÆ

Eyes dextral; ventrals distinct; dorsal and anal united with caudal.

*Brachirus*²⁸⁵ Swainson, 1839, 203.
Synaptura Cantor, 1849, 241.
Achiroides Bleeker, 1851, 247.
Æsopia Kaup, 1858, 282.
Euryglossa Kaup, 1858, 282.

Eurypleura Kaup, 1858, 282.
Anisochirus Günther, 1862, 319.
Zebrias Jordan & Snyder, 1900, 490.
*Austroglossus*²⁸⁶ Regan, 1920.

²⁸⁵ Not *Brachyrus* Swainson of page 71. The name *Brachirus* is first used by Swainson, 1839, II, page 71, for an ally of *Pterois*, with a brief diagnosis, no species being mentioned. On page 180 the same diagnosis is given without reference to species, the name being changed to *Dendrochirus*. On page 264 the definition is expanded, the word is spelled *Brachyrus* and two species, *zebra* and *brachypterus*, are mentioned. The first of these has been taken by the first reviser, Swain (1882), as type. On page 303 Swainson again uses the name *Brachirus*, this time for a genus of Soles, mentioning five species, *plagiusa*, *orientalis*, *zebra*, *commersoni* (*anus*) *jerreus*, and *pan*.

Of these, *plagiusa* is a *Symphurus*, not related to the others and not agreeing with the generic diagnosis. In 1849, recognizing that the name *Brachirus*, which he changes to *Brachyrus*, was preoccupied, Cantor offered *Synaptura* as a substitute, at the same time redescribing *commersonianus* and *zebra*. Bleeker next described *commersonianus* as the sole species of *Synaptura*, referring the others to *Brachirus*, a plan inadmissible, as *Synaptura* was a substitute name for *Brachirus*, and thus subject to the same limitations. Kaup (1858) makes *orientalis* type of a new genus (*Euryglossa*) which Günther (1862) recognizes as a subgenus, leaving *zebra*, *commersoniana* and *pan* in *Synaptura*. *Zebra* is the type of *Zebrias* Jordan & Snyder (1900); the two other species are congeneric, *commersonianus*, after Bleeker, presumably serving as Günther's type. Swain, however, definitely named *orientalis* as type as the first species mentioned under *Brachirus* which corresponds to the author's definition. It is, however, more convenient as well as according better to the rules to regard *commersonianus* as type of *Synaptura*.

The name *Brachirus* must go with its first use, for *Pterois zebra*, thus replacing *Dendrochirus*.

²⁸⁶ *Op. cit.*, 217; orthotype *Synaptura pectoralis* Kaup; right pectoral longer than head; dorsal rays in increased number.

Family 335. **CYNOGLOSSIDÆ**

(Tongue-fishes)

Eyes and color sinistral; dorsal and anal joined to the caudal; pectorals wanting; ventrals, if present, free from anal.

Plagusia Browne, 1789, 46.*Symphurus* Rafinesque, 1810, 81.*Plagusia* Rafinesque, 1815, 88.*Plagusia* (Browne) Cuvier, 1817, 101.*Cynoglossus* Hamilton, 1822, 114.*Plagusia* Swainson, 1839, 203.*Bibronia* Cocco, 1844, 219.*Plagusia* Bonaparte, 1845, 187, 226.*Euporista* Gistel, 1848, 237.*Eupnoea* Gistel, 1848, 238.*Cantorina* Kaup, 1858, 282.*Grammichthys* Kaup, 1858, 282.*Aphoristia* Kaup, 1858, 282.*Icania* Kaup, 1858, 282.*Trulla* Kaup, 1858, 282.*Arelia* Kaup, 1858, 282.*Glossichthys* Gill, 1861, 303.*Ammopleurops* Günther, 1862, 319, 278.*Paraplagusia* Bleeker, 1865, 336.*Rhinoplagusia* Bleeker, 1870, 355.*Acedia* Jordan, 1888, 442.*Usinosita*²⁸⁷ Jordan & Snyder, 1900, 490.*Areliscus* Jordan & Snyder, 1900, 490.*Cynoglossoides* Von Bonde, 1922. (See Index.)²⁸⁷ Misprinted *Usinostia*.Superorder **ACANTHOPTERYGII**Order **ZEOIDEI**Family 336. **ZEIDÆ**

(John Dories)

A family of uncertain relations, having perhaps some affinities with the flounders, with the increased number of ventral rays characteristic of the berycoid fishes, and the adnate post-temporal of *Capros* and the chætodonts.

Zeus Linnæus, 1758, 13.*Oreosoma* Cuvier, 1829, 127.*Cyttus* Günther, 1861, 575.*Cyttopsis* Gill, 1862, 314.*Zenopsis* Gill, 1862, 314.*CYTTOIDES* Wettstein, 1886, 436.*Zenion* Jordan & Evermann, 1896, 473.*Rhombocyttus* Gill, 1893, 461.*Capromimus* Gill, 1893, 461.*Cyttosoma* Gilchrist, 1903, 503, 504.*Zen* Jordan, 1903, 504.*Stethopristes* Gilbert, 1905, 513.*Cyttomimus* Gilbert, 1905, 513.*Pseudocyttus* Gilchrist, 1906, 518.*Neocyttus*²⁸⁸ Gilchrist, 1906.*Parazenopsis* Cligny, 1909, 532.*Cyttula* Weber, 1913, 551.*Allocyttus* McCulloch, 1914, 554.²⁸⁸ *Op. cit.*, 4: 153; orthotype *N. rhomboidalis* Gilchrist. (Omitted in "Genera of Fishes.")Family 337. **GRAMMICOLEPIDÆ***Grammicolepis* Poey, 1873, 371.*Vesposus*²⁸⁹ Jordan, 1921.*Xenolepidichthys* Gilchrist, 1922. (See Index.)²⁸⁹ *Proc. U. S. Nat. Mus.*, 70: 649; orthotype *Vesposus egregius* Jordan.Order **XENOBERYCES**Family 338. **STEPHANOBERYCIDÆ***Stephanoberyx* Gill, 1883, 424.*Acanthochænus* Gill, 1884, 428.*Malacosarcus* Günther, 1887, 437.

Family 339. **MELAMPHAIDÆ**

A small group of deep-sea fishes not altogether homogeneous.

- | | |
|---|--|
| Metopias Lowe, 1843, 215. | Plectromus Gill, 1883, 424. |
| AULOLEPIS Geinitz, 1849, 408. | Scopelogadus Vaillant, 1888, 444. |
| Anoplogaster Günther, 1859, 291. | Lophocephalus Osorio, 1906, 520. |
| Melamphaës Günther, 1864, 333. | Scopeloberyx Zugmayer, 1911, 541. |
| Poromitra Goode & Bean, 1881, 419. | Poromitrella Zugmayer, 1911, 541. |
| Caulolepis Gill, 1883, 424. | |

Order **BERYCOIDEI**Family 340. **POLYMIXIIDÆ**

- | | |
|--|--|
| Polymixia Lowe, 1838, 192. | IMOASTER Costa, 1857, 275. |
| Nemobrama Valenciennes, 1844, 223. | PLATYCORMUS von der Marck, 1858, 283. |
| PYCNOTERINX ²⁰⁰ Heckel, 1849, 243. | Dinemus Poey, 1860, 298. |

²⁰⁰ Misprinted in "Genera of Fishes." This genus and the two which follow are probably berycoid, but their relations are uncertain.

Family 341. **BERYCOPSIDÆ**

- | | |
|-------------------------------------|-------------------------------------|
| BERYCOPSIS Dixon, 1850, 245. | STENOSTOMA Dixon, 1850, 245. |
|-------------------------------------|-------------------------------------|

Family 342. **BERYCIDÆ**

- | | |
|--|---|
| Beryx Cuvier, 1829, 127. | HEMICYCLOLEPIS Steinla, 1868, 350. |
| PRISTIGENYS Agassiz, 1839, 191, 194. | SPINACITES Fritsch, 1893, 461. |
| Centroberyx Gill, 1862, 315. | ELECTROLEPIS Fritsch, 1893, 461. |
| MACROLEPIS von der Marck, 1863, 327, 346. | LOBOPTERUS Kramberger, 1895, 469. |
| HETEROLEPIS Costa, 1865, 336. | Trachichthodes Gilchrist, 1903, 503. |
| HEMIGONOLEPIS Steinla, 1868, 350. | BRADYURUS Gill, 1904, 508. |
| PRIONOLEPIS Steinla 1868, 350. | Austroberyx McCulloch, 1911, 540. |
| GONIOLEPIS Steinla, 1868, 350. | |

Family 343. **HOPLOPTERYGIDÆ**

- HOPLOPTERYX** Agassiz, 1838, 191.

Family 344. **DIRETMIDÆ**

- | | |
|-------------------------------------|---|
| Diretmus Johnson, 1863, 326. | Discus ²⁰¹ Campbell, 1879, 399. |
|-------------------------------------|---|

²⁰¹ A synonym of *Diretmus*.

Family 345. **MONOCENTRIDÆ**

(Pine-cone Fishes)

- | | |
|---|---|
| Monocentris Bloch & Schneider, 1801, 58. | Lepicantha Rafinesque, 1815, 89. |
| Lepisacanthus Lacépède, 1802, 62. | Cleidopus De Vis, 1883, 423. |
| Ericius Tilesius, 1809, 76. | |

Family 346. **ANOMALOPIDÆ**

- | | |
|--|---|
| Heterophthalmus Bleeker, 1856, 267. | Photoblepharon Weber, 1902, 501. |
| Anomalops Kner, 1868, 352. | |

Family 347. **TRACHICHTHYIDÆ****Trachichthys** Shaw, 1799, 55.**Hoplostethus** Cuvier & Valenciennes, 1829, 133.**ACROGASTER** Agassiz, 1838, 191.**SPHENOCEPHALUS** Agassiz, 1838, 191.**AIPICHTHYS** Steindachner, 1859, 293.**ACANTHOPHORIA** Kramberger, 1895, 469.**Paratrachichthys** Waite, 1899, 488.**Gephyroberyx**²⁰² Boulenger, 1902, 497.**Leiogaster** Weber, 1913, 551.²⁰² Misprinted in "Genera of Fishes."Family 348. **HOLOCENTRIDÆ**

(Soldier Fishes)

Holocentrus²⁰³ Gronow, 1763, 19.**Farer** Forskål, 1775, 34.**Holocentrus** (Gronow) Scopoli, 1777, 42.**Erythrinus**²⁰⁴ (Plumier) Lacépède, 1803, 72.**Corniger** Agassiz, 1829, 132.**Myripristis** Cuvier, 1829, 127.**Ostichthys** (Langsdorff) Cuvier & Valenciennes, 1829, 174.**Rhynchichthys** Cuv. & Val., 1831, 137.**HOMONOTUS** Dixon, 1850, 245.**Plectrypops** Gill, 1862, 315.**Rhinoberyx** Gill, 1862, 315.**Rhamphoberyx** Gill, 1863, 324.**Neomyripristis** Castelnau, 1873, 367.**Holotrachys** Günther, 1873, 369.**Neoniphon** Castelnau, 1875, 378.**Harpage** De Vis, 1884, 427.**Ostichthys** (Langsdorff) Jordan & Evermann, 1896, 473.**Flammeo** J. & E., 1898, 482.**Howella** Ogilby, 1898, 483.**TRACHICHTHYOIDES** Woodward, 1902, 501.**Beanea** Steindachner, 1902, 500.**Sargocentron** Fowler, 1904, 507.**Adioryx** Starks, 1908, 531.**CAPROBERYX** Regan, 1911, 540.²⁰³ Often written *Holocentrum*.²⁰⁴ Also written *Eritrinus* by Plumier.Family 349. **DINOPTERYGIDÆ****DINOPTERYX** Woodward, 1901, 496.Family 350. **CTENOTHRISSIDÆ****AULOLEPIS** Agassiz, 1844, 218.**CTENOTHRISSA** Woodward, 1899, 488.Family 351. **CARISTIIDÆ****Caristius** Gill & Smith, 1905, 514.**Platyberyx** Zugmayer, 1911, 541.Order **THORACOSTEI**Suborder **HEMIBRANCHII***(Phthinobranchii)*Family 352. **GASTEROSTEIDÆ**

(Sticklebacks)

Gasterosteus Linnaeus, 1758, 13.**Gasteracanthus** Pallas, 1811, 84.**Spinachia** Cuvier, 1817, 105.**Leiurus** Swainson, 1839, 200.**Polycanthus** Swainson, 1839, 200.**Apeltes** Dekay, 1842, 210.

*Pungitius*²⁹⁵ Coste, 1846.

Pygosteus (Brevoort) Gill, 1861, 302.

Gastræa Sauvage, 1874, 377.

Gasterosteus Sauvage, 1874, 377.

Eucalia Jordan, 1876, 386.

MERRIAMELLA Jordan, 1907, 525.

²⁹⁵ Coste, P., "Nidification des épinoches et des épinochettes," *Mém. Savants Étrangers*, Paris, 1846, 10: 574-588. Quoted by Gill, "Smithsonian Report for 1905," 505, 1907; type *Gasterosteus pungitius* Linnæus; replaces *Pygosteus* Brevoort. I owe this note to William Converse Kendall, not having seen Coste's paper.

Family 353. AULORHYNCHIDÆ

Aulorhynchus Gill, 1861, 305.

Auliscops Peters, 1866, 342.

Aulichthys Brevoort, 1862, 315.

Family 354. PROTSYNGNATHIDÆ

PROTSYNGNATHUS Von der Marck, 1876,

386.

Suborder LOPHOBRANCHII

Family 355. SOLENOSTOMIDÆ

*Solenostomus*²⁹⁶ Lacépède, 1803, 67.

*Solenichthus*²⁹⁷ Bleeker, 1865, 336.

SOLENO RHYNCHUS Heckel, 1854, 259.

²⁹⁶ Written *Solenostoma* by Rafinesque.

²⁹⁷ Later written *Solenostomatichthys* by Bleeker.

Family 356. SYNGNATHIDÆ (*Hippocampidæ*)

(Pipe Fishes; Sea Horses)

The pipe fishes, elongate, with caudal fin, grade almost imperceptibly into the more specialized sea horses (*Hippocampus*), in which the caudal is wanting and the tail prehensile.

Syngnathus Linnæus, 1758, 16.

Acus P. L. S. Müller, 1767, 24.

Acus Valmont, 1791, 50.

Typhle Rafinesque, 1810, 78.

Siphostoma Rafinesque, 1810, 79.

Hippocampus Rafinesque, 1810, 79.

Nerophis Rafinesque, 1810, 82.

Hippocampus Leach, 1814, 85.

Tiphlinus Rafinesque, 1815, 91.

Hippocampus Cuvier, 1817, 98.

Scyphius Risso, 1826, 119.

Nematosoma Eichwald, 1831, 176.

Acestra Jardine, 1831, 137.

CALAMOSTOMA Agassiz, 1833, 177.

Acus Swainson, 1839, 205.

*Solegnathus*²⁹⁸ Swainson, 1839, 205.

Phyllopteryx Swainson, 1839, 205.

Hippichthys Bleeker, 1849, 241.

Syngnathoides Bleeker, 1851, 248.

Microphis Kaup, 1853, 254.

Hemimarsupium Kaup, 1853, 254.

Doryichthys Kaup, 1853, 254.

Chæroichthys Kaup, 1853, 254.

*Stigmatopora*²⁹⁹ Kaup, 1853, 254.

Doryrhamphus Kaup, 1853, 254.

Leptoichthys Kaup, 1853, 254.

Leptonotus Kaup, 1853, 253.

Ichthyocampus Kaup, 1853, 253.

*Corythoichthys*³⁰⁰ Kaup, 1853, 253.

Trachyrhamphus Kaup, 1853, 253.

Halicampus Kaup, 1853, 253.

Gasterotokeus Heckel, 1853, 253.

²⁹⁸ Later spelled *Solenognathus*.

²⁹⁹ Spelled *Stigmatophora* by error.

³⁰⁰ Spelled *Corythoichthys* by error.

Acentronura Kaup, 1853, 253.
Cœlonotus Peters, 1855, 266.
Siphonostoma^{300a} Kaup, 1856.
Hemithylacus Kaup, 1856, 272.
Solenognathus Bleeker, 1856, 268.
Haliichthys Gray, 1859.
Dermatostethus Gill, 1862, 317.
Pseudosyngnathus Kner, 1863, 327, 338.
Belonichthys Peters, 1868, 353.
Protocampus Günther, 1870, 357.
Entelurus Duméril, 1870, 357.
Nannocampus Günther, 1870, 357.
Urocampus Günther, 1870, 357.
Hymenolomus Duméril, 1870, 357.

Atelurus Duméril, 1870, 357.
Typhlus (Bibron) Bleeker, 1870, 357.
Osphyolax Cope, 1875, 379.
Penetropteryx Lunel, 1881, 416.
Acmonotus Philippi, 1896, 475.
Phycodurus Gill, 1896, 471.
YoZIA Jordan & Snyder, 1901, 495.
Castelnauiina Fowler, 1907, 523.
Macleayina Fowler, 1907, 523.
Acanthognathus Duncker, 1912, 542.
Micrognathus Duncker, 1912, 542.
Apterygocampus Weber, 1913, 551.
Histiogamphelus McCulloch, 1914, 553.
Lissocampus³⁰¹ Waite & Hale, 1921.

^{300a} *Op. cit.*, 46; orthotype *Syngnathus typhle* Linnæus. A synonym of *Typhle*.
 (Omitted in "Genera of Fishes.")

³⁰¹ *Records South Australian Museum*, 1: 306, Jan. 29, 1921; orthotype *L. caudalis* Waite & Hale.

Order HYPOSTOMIDES

Family 357. PEGASIDÆ

(Sea Moths)

Pegasus Linnæus, 1758, 16.
Cataphractus Gronow, 1763, 21.
Eurypegasus Bleeker, 1863, 322.
Parapegasus Bleeker, 1870, 357.

Leptopegasus Bleeker, 1873, 367.
Zalises Jordan & Snyder, 1901, 494.
Acanthopegasus McCulloch, 1915, 556.

Order AULOSTOMI

Family 358. AULOSTOMIDÆ

(Trumpet Fishes)

Aulostomus³⁰² Lacépède, 1803, 66.

Polypterichthys Bleeker, 1853, 252.

³⁰² Often written *Aulostoma*.

Family 359. FISTULARIIDÆ

(Cornet Fishes)

Fistularia Linnæus, 1758, 14.
Solenostomus Gronow, 1763, 21.
Petimbubabo Catesby, 1771, 31.
Solenostomus Klein, 1778, 43.
Solenostomus Browne, 1789, 46.

Aulus (Commerson) Lacépède, 1803, 70.
Cannorhynchus Cantor, 1849, 241.
Flagellaria³⁰³ Gronow, 1854.
Solenostomus (Gronow) Gill, 1861, 302.
PROTAULOPSIS Woodward, 1901, 496.

³⁰³ Type *F. fistularis* Gronow, *F. tabacaria* Linnæus. (Omitted in "Genera of Fishes.")

Family 360. UROSPHENIDÆ

UROSPHEN Agassiz, 1844, 181, 218.

Family 361. RHAMPHOSIDÆ

RHAMPHOSUS Agassiz, 1844, 218.

Family 362. **CENTRISCIDÆ** (*Amphisilidæ*)

Centriscus Linnæus, 1758, 16.
Amphisilen Klein, 1775, 38.
Amphisile Cuvier, 1817, 106.

Acentrachme Gill, 1862, 315.
AULORHAMPHUS Zigno, 1890, 453.
Æoliscus Jordan & Starks, 1902, 499.

Family 363. **MACRORHAMPHOSIDÆ**

Macrorhamphosus Lacépède, 1803, 66.
Macrognathus Gronow, 1854, 259.
Orthichthys Gill, 1862, 315.
Centriscops Gill, 1862, 315.

Limiculina Fowler, 1907, 523.
Notopogon Regan, 1914, 555.
Scolopacichthys Regan, 1914, 555.

Order **LABYRINTHICI**Family 364. **LUCIOCEPHALIDÆ**

Diplopterus³⁰⁴ Gray, 1831, 138.

Luciocephalus Bleeker, 1851, 247.

³⁰⁴ This name is preoccupied; the genus is identical with *Luciocephalus*.

Family 365. **OPHICEPHALIDÆ**

Channa Gronow, 1763, 22.
Chama (Gronow) Scopoli, 1777, 42.

Ophicephalus³⁰⁵ Bloch, 1794, 53.
Philypnoides Bleeker, 1849, 241.

³⁰⁵ Usually spelled *Ophiocephalus*.

Family 366. **HELOSTOMIDÆ**

Helostoma (Kuhl) Cuvier, 1829, 129.
Spirobranchus Cuvier, 1829, 129.

Sandelia Castelnau, 1861, 301.

Family 367. **POLYACANTHIDÆ**

Polyacanthus (Kuhl) Cuvier, 1829, 129, 173.

Family 368. **OSPHRONEMIDÆ**

Osphronemus³⁰⁶ Lacépède, 1801, 61.
Trichogaster Bloch & Schneider, 1801, 58.
Trichopodus Lacépède, 1802, 61.
Macropodus³⁰⁷ Lacépède, 1802, 63.
Platyopus Lacépède, 1804, 169.
Trichopus Shaw, 1804, 73.
Colisa Cuvier & Valenciennes, 1831, 137.
Ctenops McClelland, 1845, 227.
Pedites Gistel, 1848, 236.

Lithulcus Gistel, 1848, 237.
Betta Bleeker, 1850, 245.
Trichopsis Canestrini, 1860, 295.
Sphærichthys Canestrini, 1860, 295.
Parosphromenus Bleeker, 1879, 398.
Pseudosphromenus Bleeker, 1879, 398.
Micracanthus Sauvage, 1879, 400.
Parophiocephalus³⁰⁸ Popta, 1905, 515.
Oshimia Jordan, 1919, 567.

³⁰⁶ Written *Osphromenus* by authors.

³⁰⁷ Written *Macropus* by authors.

³⁰⁸ A synonym of *Betta*.

Family 369. **ANABANTIDÆ**

(Climbing Perch)

Anabas Cuvier, 1817, 106.
Coius Hamilton, 1822, 114.

Ctenopoma Peters, 1846, 225.

Order PERCOMORPHI

Suborder PERCESOCES

Family 370. NANNATHERINIDÆ

*Nannatherina*³⁰⁰ Regan, 1906.

³⁰⁰ *Ann. Mag. Nat. Hist.*, 17: 451; orthotype *N. ralstoni* Regan. (Omitted in "Genera of Fishes.")

Family 371. BEDOTIIDÆ

Bedotia Regan, 1903, 506.

Family 372. MELANOTÆNIIDÆ

A group of river fishes of the Australian region, closely related to the *Atherinidæ* but showing certain traits which set them off as a distinct subfamily. The number of nominal genera had been inordinately multiplied.

Melanotænia Gill, 1862, 316.

Pseudomugil Kner, 1864, 334.

Strabo Kner & Steindachner, 1866, 341.

Nematocentris Peters, 1870, 356.

Atherinosoma Castelnau, 1872, 363.

Zantecla Castelnau, 1873, 367.

Neoatherina Castelnau, 1875, 378.

Aida Castelnau, 1875, 378.

Aristeus Castelnau, 1879, 393, 399.

*Rhombatractus*³¹⁰ Gill, 1894, 464.

Telmatherina Boulenger, 1897, 476.

Glossolepis Weber, 1907, 527.

Rhombosoma Regan, 1914, 554.

Rhadinocentrus Regan, 1914, 554.

Anisocentrus Regan, 1914, 554.

*Centratherina*³¹¹ Regan, 1914.

Chilatherina Regan, 1914, 554.

³¹⁰ The date 1879 on page 399, "Genera of Fishes," is an error.

³¹¹ Regan, *loc. cit.*; orthotype *Rhombatractus crassispinosus* Weber. (Omitted in "Genera of Fishes.")

Family 373. ATHERINIDÆ

(Silversides; Hardy Heads; Pescados del Rey; Peixerey)

Atherina Linnaeus, 1758, 15.

Aphia^{311a} Risso, 1826, 119.

Hepsetia Bonaparte, 1837, 187.

Menidia Bonaparte, 1837, 187.

Membras Bonaparte, 1837, 142, 187.

Chirostoma Swainson, 1839, 200.

Argyrea Dekay, 1842, 210.

RHAMPHOGNATHUS Agassiz, 1844, 219.

MESOGASTER Agassiz, 1844, 219.

Atherinoides Bleeker, 1853, 253.

Atherinichthys Bleeker, 1853, 253.

Heterognathus Girard, 1854, 258.

Basilichthys Girard, 1854, 258.

Atherinopsis Girard, 1854, 257.

Labidesthes Cope, 1870, 356.

Protistius Cope, 1874, 375.

Atherinops Steindachner, 1875, 381.

Atherinella Steindachner, 1875, 381.

Gastropterus Cope, 1878, 394.

Leuresthes Jordan & Gilbert, 1880, 403.

Thyrina Jordan & Culver, 1895, 468.

Tropidostethus Ogilby, 1895, 469.

Lethostole Jordan & Evermann, 1896, 473.

Eurystole J. & E., 1896, 473.

Kirtlandia J. & E., 1896, 473.

Eslopsarum J. & E., 1896, 472.

Tæniomembras Ogilby, 1898, 483.

Pisciregia Abbott, 1899, 484.

Iso Jordan & Starks, 1901, 495.

Atherion J. & S., 1901, 485.

^{311a} These minute translucent fishes were regarded by Cuvier as the young of *Atherina*. But Risso describes their egg-laying, and they may be really a distinct form.

- Melaniris** Meek, 1902, 500.
Ischnomembras Fowler, 1903, 503.
Atherinomorus Fowler, 1903, 503.
Phoxargyrea Fowler, 1903, 503.
Odontesthes Evermann & Kendall, 1906, 517.
Xenatherina Regan, 1907, 526.
Craterocephalus McCulloch, 1912, 544.
Pseudothyridina Ribeiro, 1915, 557.
Kronia Ribeiro, 1915, 557.
- Colpichthys** Hubbs, 1918, 564.
Austromeniidia Hubbs, 1918, 564.
Thyrinops Hubbs, 1918, 564.
Hubbesia Jordan, 1919, 566.
Rheocles Jordan & Hubbs, 1919, 567.
ZANTECLITES Jordan & J. Z. Gilbert, 1919, 568.
Archomenidia Jordan & Hubbs, 1919, 569.
Melanorhinus³¹² Metzelaar, 1920.

³¹² Metzelaar (Jan), "Over Tropisch Atlantisch Visschen, Amsterdam," 38; type *Melanorhinus boeki* Metzelaar.

Family 374. MUGILIDÆ

(Mulletts)

- Mugil** Linnæus, 1758, 15.
Albula Catesby, 1771, 30.
Cestreus Klein, 1777, 43.
Chelon Röse, 1793, 52.
Cephalus (Plumier) Lacépède, 1803, 73.
Agonostomus Bennett, 1830, 174.
Nestis Cuvier & Valenciennes, 1836, 185.
Dajaus Cuv. & Val., 1836, 185.
Cestræus Cuv. & Val., 1836, 185.
Arnion Gistel, 1848, 237.*
Joturus Poey, 1860, 299.
Myxus Günther, 1861, 307.
- Rhinomugil** Gill, 1863, 324.
Chænomugil Gill, 1863, 324.
Gonostomyxus Macdonald, 1869, 355.
Neomyxus Steindachner, 1878, 397.
Querimana Jordan & Gilbert, 1882, 420.
Æschrichthys Macleay, 1883, 424.
Liza Jordan & Swain, 1884, 428.
Trachystoma Ogilby, 1887, 438.
Neomugil Vaillant, 1894, 466.
Cedalechilus Fowler, 1903, 502.
Squalomugil Ogilby, 1908, 529.
Xenorhynchichthys Regan, 1908, 530.

Family 375. SPHYRÆNIDÆ

(Barracudas)

- Umbla* Catesby, 1771, 29.
Sphyræna Klein, 1778, 43.
Sphyræna Röse, 1793, 52.
Sphyræna Bloch & Schneider, 1801, 58.
- Acus* (Plumier) Lacépède, 1803, 73.
*Sphærina*³¹³ Swainson, 1839.
Agriosphyræna Fowler, 1903, 502.

³¹³ A misprint for *Sphyræna*.

Suborder RHEGNOPTERI

Family 376. POLYNEMIDÆ

(Thread-fins)

- Polynemus** Linnæus, 1758, 15.
Trichidion Klein, 1775, 40.
Polydactylus Lacépède, 1803, 67.
Galeoides Günther, 1860, 297.
Pentanemus Günther, 1860, 296.
- Trichidion** (Klein) Gill, 1861, 302.
Polistonemus Gill, 1861, 305.
Eleutheronema Bleeker, 1862, 310.
Eleutherochir Bleeker, 1879, 398.

*Series SCOMBRIFORMES*Family 377. **SCOMBRIDÆ**

(Mackerels)

- Scomber** Linnæus, 1758, 14.
Pelamys Klein, 1775, 37.
Scomberomorus Lacépède, 1802, 62.
Macrorhynchus (Lacépède) Duméril, 1806, 56, 75.
Polipturus Rafinesque, 1815, 89.
Cybius Cuvier, 1829, 129.
Apolectus Bennett, 1831, 173, 175, 284.
Apodontis Bennett, 1831, 173, 284.
XIPHOPTERUS Agassiz, 1835, 181.
DICTYODUS Owen, 1839, 196.
SPHYRÆNODUS (Owen) Agassiz, 1841, 209, 219.
PALIMPHYES Agassiz, 1844, 218, 231.
ISURUS (Egerton) Agassiz, 1844, 189, 218.
Gasteroschisma Richardson, 1845, 227.
ACROPOMA Owen, 1854, 260.
EUCYNODUS Owen, 1854, 260.
Cordylus Gronow, 1854, 259.
Acanthocybium Gill, 1862, 314.
Lepidocybium Gill, 1862, 314.
STEREODUS Owen, 1865, 339.
SCOMBERODON Van Beneden, 1871, 360.
Chriomitra Lockington, 1879, 400.
MEGALOLEPIS Kramberger, 1879, 400.
Pneumatophorus Jordan & Gilbert, 1882, 420.
AMPHODON Storms, 1886, 436.
Lepidothynnus Günther, 1889, 447.
CÆLOPOMA (Agassiz) Woodward, 1901, 224.
SCOMBRINUS (Agassiz) Woodward, 1901, 224, 496.
RHONCHUS (Agassiz) Woodward, 1901, 224, 496.
ISURICHTHYS Woodward, 1901, 496.
EOCÆLOPOMA Woodward, 1901, 496.
SCOMBRAMPHODON Woodward, 1901, 496.
Chenogaster Lahille, 1903, 505.
KRAMBERGERIA Simionescu, 1904, 511.
Sierra Fowler, 1905, 512.
PELAMYCYBIUM Toulà, 1905, 516.
NEOCYBIUM Leriche, 1906, 519.
Nesogrammus Evermann & Seale, 1907, 522.
Rastrelliger Jordan & Starks, 1908, 528.
AUXIDES Jordan, 1919, 568.
TUNITA J. & G., 1919, 569.
TURIO J. & G., 1920, 571.
THYRSOCLES J. & G., 1920, 571.
THYRSION Jordan, 1920, 571.
ZAPHLEGES Jordan, 1920, 571.
OCYSTIAS Jordan, 1920, 571.
XESTIAS²¹⁴ Jordan, 1921.

²¹⁴ "Fish Fauna, Cal. Tertiary," 270; type *X. iratus* Jordan.Family 378. **THUNNIDÆ**

(Tunnies; Albacores)

"The bonitos and tunnies are quite different from other teleostomous fish in having dark red muscles deeply situated on both sides of the vertebral column."—(K. Kishinouye, *Proc. Pan-Pacific Scientific Conference*, 1: 229. 1921.)

- Thynnus* Browne, 1789, 48.
Thynnus Cuvier, 1817, 105.
Orcynus Cuvier, 1817, 105.
Sarda Cuvier, 1829, 129.
Auxis Cuvier, 1829, 129.
Pelamys Cuvier & Valenciennes, 1831, 573.
Palamita Bonaparte, 1831, 175.
Thunnus South, 1845, 227.
Creotroctes Gistel, 1848, 237.
Orcynus Gill, 1862, 315.
Gymnosarda Gill, 1862, 315.
Orcynopsis²¹⁵ Gill, 1862, 314.
Grammatorcynus²¹⁶ Gill, 1862, 314.

²¹⁵ Misprinted *Orcynopsis*.²¹⁶ Misprinted *Grammatorycnus*.

Orycnus Gill 1862, 315.
Thynnichthys Giglioli, 1880, 402.
Pelamichthys Giglioli, 1880, 402.
Euthynnus (Lütken) Jordan & Gilbert,
 1882, 420.
Germo Jordan, 1888, 442.
Albacora Jordan, 1888, 442.

CÆLOCEPHALUS (Agassiz) Woodward,
 1901, 219.
PHALACRUS (Ag.) Woodward, 1901, 224.
EOTHYNNUS Woodward, 1901, 496.
CARINICEPS (Owen) Woodward, (1854)
 1901, 260, 496.
OZYMANDIAS Jordan, 1919, 569.

Family 379. **GEMPYLIDÆ**

(Snake Mackerels; Escolares)

Acinaces Bory de St. Vincent, 1804, 170.
Macrorhynchus (Lacépède) Duméril,
 1806, 56.
Thyrsites Cuvier, 1829, 129.
Gempylus Cuvier, 1829, 129.
Lemnisoma Lesson, 1830, 140.
Ruvettus Cocco, 1833, 178.
Acanthoderma Cantraine, 1837, 188.
Aplurus Lowe, 1841, 209.
Prometheus Lowe, 1841, 209.
Epinnula Poey, 1854, 260.
Dicrotus Gumber, 1860, 297.
THYRSITOCEPHALUS Rath, 1859, 292.
Thyrsitops Gill, 1862, 314.

Nesiarchus Johnson, 1862, 319.
Nealotus Johnson, 1865, 338.
ACANTHONOTUS Sauvage, 1870, 359.
HEMITHYRSITES Sauvage, 1873, 371.
Gyrionemus Vaillant, 1888, 443.
BATHYSOMA Davis, 1890, 450.
Promethichthys Gill, 1893, 461.
Escolar Jordan & Evermann, 1896, 468.
Bipinnula Jordan & Evermann, 1896, 474.
Machærope Ogilby, 1898, 483.
Xenogramma Waite, 1904, 511.
Jordanidia Snyder, 1911, 541.
Rexia Waite, 1911, 541.

Family 380. **TRICHIURIDÆ** (*Lepidopidæ*)

(Hair-tails)

Trichiurus Linnæus, 1758, 12.
Gymnogaster Gronow, 1767, 22.
Lepidopus Gonau, 1770, 28.
Enchelyopus Klein, 1775, 57.
Vandellia Shaw, 1803, 73.
Scarcina Rafinesque, 1810, 79.
Xiphotheca^{ant} Montagu, 1812, 84.
ANENCHELUM Blainville, 1818, 107.
Aphanopus Lowe, 1839, 195.

Zypothyca Swainson, 1839, 200.
LEPIDOPIDES Heckel, 1850, 246.
Lepturus (Artedi) Gill, 1861, 302.
Enchelyopus (Klein) Bleeker, 1862, 310.
Eupleurogrammus Gill, 1862, 314.
Evoxymetopon Poey, 1863, 325.
TRICHIURICHTHYS Sauvage, 1873, 371.
Benthodesmus Goode & Bean, 1882, 419.
Lepturacanthus Fowler, 1905, 512.

^{ant} Written *Ziphotheca* by Swainson.

Series **XIPHIIFORMES**

Family 381. **PALÆORHYNCHIDÆ**

PALÆORHYNCHUM Blainville, 1818, 108.
HEMIRHYNCHUS Agassiz, 1844, 219.

HOMALORHYNCHUS Van Beneden, 1873,
 367.

Family 382. **BLOCHIIDÆ**

BLOCHIUS Volta, 1796, 54.
CÆLORHYNCHUS Agassiz, 1844, 219.

GLISCUS Gistel, 1848, 235.

Family 383. **ISTIOPHORIDÆ**

(Sail Fishes; Spear Fishes)

Istiophorus²¹⁸ Lacépède, 1802, 62.**Zanclurus** Swainson, 1839, 200.**Makaira**²¹⁹ Lacépède, 1803, 65.**ENCHEIZIPHUS** Rütimeyer, 1857, 276.**Notistium** Herrmann, 1804, 74.**EMBALORHYNCHUS** Marsh, 1870, 359.**Tetrapturus** Rafinesque, 1810, 80.**BRACHYRHYNCHUS** Van Beneden, 1871,**Skeponopodus** Nardo, 1833, 179.

360.

²¹⁸ Written *Histiophorus* by authors.²¹⁹ Also spelled *Machæra* and *Macaria* by authors.Family 384. **XIPHIIDÆ**

(Sword Fishes)

Xiphias Linnæus, 1758, 12.**ACESTRUS** (Agassiz) Woodward, 1901,
221, 496.Family 385. **XIPHIORHYNCHIDÆ****XIPHIORHYNCHUS** Van Beneden, 1871,
360.**OMMATOLAMPES** Fischer von Waldheim,
1850, 246.*Series LUVARIFORMES*Family 386. **LUVARIDÆ****Luvarus** Rafinesque, 1810, 79.**Scrofaria** Gistel, 1848, 235.**Ausonia** Risso, 1826, 120.*Series CORYPHAENIFORMES*Family 387. **CORYPHÆNIDÆ**

(Dolphins; Dorados)

Coryphæna Linnæus, 1758, 12.**Lepimphus** Rafinesque, 1810, 79.**Hippurus** Klein, 1779, 43.**Lampugus** Cuvier & Valenciennes, 1833,
178.**Caranxomorus** Lacépède, 1802, 61.**Coryphus** (Commerson) Lacépède, 1802,
70.**Sarda** Gronow, 1854, 259.*Series BRAMIFORMES*Family 388. **BRAMIDÆ**

(Sea-brems)

The fishes of this family have some traits in common with the *Selenichthyes*, from which they may be derived.

Brama Bloch & Schneider, 1801, 58.**Argo** Döderlein, 1883, 426.**Lepodus** Rafinesque, 1810, 80.**Collybus** Snyder, 1904, 511.**Taractes** Lowe, 1843, 215.**Eumegistus**²²⁰ Jordan & Jordan, 1923.**Tylometopon** (Van Bemmelen) Bleeker,
1876, 383.

²²⁰ Jordan (David Starr) and Jordan (Eric Knight), "Fishes of Hawaii," *Mem. Carnegie Museum*, 35; orthotype *Eumegistus illustris* Jordan & Jordan.

Family 389. **STEINEGERIIDÆ**

Steinegeria Jordan & Evermann, 1886,
435.

Family 390. **DIANIDÆ**

Diana Risso, 1826, 119.

Astrodermus (Bonelli) Cuvier, 1829, 129.

Proctostegus Nardo, 1827, 121.

Family 391. **PTERACLIDÆ**

Pteraclis Gronow, 1763, 22.

Oligopodes (Risso) Cuvier, 1817, 105.

Pteraclis Gronow, 1772, 22.

Oligopus^{230a} Risso, 1826, 105.

Pteridium Scopoli, 1777, 41.

Pterycombis Fries, 1837, 189.

Oligopodus Lacépède, 1800, 57.

Centropholis Hilgendorf, 1878, 395.

Pteraclidus Rafinesque, 1815, 88.

Bentenia Jordan & Snyder, 1901, 494.

^{230a} Type *Oligopus niger* Risso.

Family 392. **ELEPHENORIDÆ**

Elephenor Jordan, 1919, 568.

Series **STROMATEIFORMES**Family 393. **STROMATEIDÆ**

Teeth in the gullet; scales small, mostly silvery; first dorsal more or less rudimentary.

Stromateus Linnæus, 1758, 12.

Poronotus Gill, 1861, 302.

Rhombus Lacépède, 1800, 56.

Psenopsis Gill, 1862, 314.

Lepterus Rafinesque, 1810, 80.

ASPIDOLEPIS Geinitz, 1868, 349.

Fiatola Cuvier, 1817, 106.

Palometa Jordan & Evermann, 1896, 474.

Seserinus (Cuvier) Oken, 1817, 106.

Pterorhombus Fowler, 1906, 517.

Fiatola Risso, 1826, 119.

Eucrotus B. A. Bean, 1912, 541.

Peprilus Cuvier, 1829, 129.

Toledia Ribeiro, 1915, 557.

Family 394. **PAMPIDÆ**

The fishes of this group are closely similar to the *Stromateidæ* in character and appearance, differing, however, in the narrowly restricted gill openings.

Pampus Bonaparte, 1837, 187.

Leptolepis (Van Hasselt) Guichenot,
1867, 345.

Stromateoides Bleeker, 1851, 248.

Pampus (Bonaparte) Fowler, 1905, 513.

Chondrolites Gill, 1862, 314.

Family 395. **CENTROLOPHIDÆ**

This group or family is closely allied to the *Stromateidæ*, differing in the continuous dorsal, larger scales, and much more elongate form.

Centrolophus Lacépède, 1803, 64.

Leirus²³¹ Lowe, 1833, 179.

Acentrolophus Nardo, 1827, 121.

Mupus Cocco, 1833, 178.

Schedophilus Cocco, 1829, 133.

Gymnocephalus Cocco, 1838, 191.

²³¹ Usually written *Lirus*.

- | | |
|---|---|
| Pompilus Lowe, 1839, 195. | Pammelas Günther, 1860, 297. |
| Palinurus ³²³ Dekay, 1842, 288. | Hoplocoryphus Gill, 1862, 314. |
| Crius Valenciennes, 1844, 223. | Icichthys Jordan & Gilbert, 1880, 404. |
| Palinurichthys Bleeker, 1859, 288. | Ectenias Jordan & Thompson, 1914, 553. |
| Palinurichthys Gill, 1860, 295. | |

³²³ "N. Y. Fauna Fishes," 118; orthotype *P. perciformis* Dekay; name preoccupied. (Omitted in "Genera of Fishes.")

Family 396. **NOMEIDÆ** (*Psenidæ*)

This group is closely allied to the *Stromateidæ*, having, like the latter, teeth in the gullet. It differs in the presence of a well-developed first dorsal fin.

- | | |
|---|---|
| Nomeus Cuvier, 1817, 105. | Navarchus Filippi & Verany, 1859, 291. |
| Psenes Cuvier & Valenciennes, 1833, 142. | Neptomenus Günther, 1860, 297. |
| Cubiceps Lowe, 1843, 215. | Trachelocirrus Doumet, 1863, 323. |
| Seriola Guichenot, 1848, 238. | Bathyseriola Alcock, 1890, 449. |
| Atimostoma Smith, 1849, 244. | Ariomma ³²³ Jordan & Snyder, 1904, 508. |
| CARANGODES Heckel, 1856, 270. | Icticus ³²⁴ Jordan & Thompson, 1914, 553. |
| Hyperoglyphe Günther, 1859, 291. | |

³²³ Probably not distinguishable from *Cubiceps*.

³²⁴ *Icticus*, like *Icichthys*, *Schedophilus*, and *Icosteus*, is pelagic, the body soft and limp like a wet rag. *Icticus* has, however, a distinct spinous dorsal, and *Icosteus* is covered with tough naked skin beset on the lateral line and fin rays with prickles.

Family 397. **TETRAGONURIDÆ**

Allied to the *Stromateidæ*, according to Regan, the species having like-wise teeth in the gullet. The external characters are, however, very different.

- | | |
|--------------------------------------|-------------------------------------|
| Tetragonurus Risso, 1810, 77. | Ctenodax Macleay, 1886, 436. |
|--------------------------------------|-------------------------------------|

Series **ICOSTEIFORMES**

Family 398. **ICOSTEIDÆ** (Rag Fishes)

This family and the next seem related to the *Centrolophidæ*, but the bones are very feeble and the gullet teeth seem to be wanting.

- | | |
|---|---|
| Icosteus ³²⁵ Lockington, 1880, 404. | Schedophilopsis Steindachner, 1881, 417. |
|---|---|

³²⁵ In *Icosteus* the ventral rays, I, 4; in *Acrotus* the fin is entirely wanting.

Family 399. **ACROTIDÆ**

- | |
|---------------------------------|
| Acrotus Bean, 1887, 437. |
|---------------------------------|

Series **CARANGIFORMES**

Vertebræ strong, 24 to 26 in number.

Family 400. **APOLECTIDÆ**

This group, with the general aspect of *Stromateus*, has the vertebræ 10 + 15 as in *Caranx*. The species lack the gullet teeth characteristic of the *Stromateidæ*. The dorsal and anal are without spines, in the adult at least, and the keeled tail is without scutes. The soft dorsal is inserted farther forward than in *Caranx*, in front of middle of body.

Apolectus Cuvier & Valenciennes, 1831,
174, 284.

Parastromateus Bleeker, 1865, 336.

Family 401. **CARANGIDÆ**

(Cavallas)

These fishes, having much in common with the scombroid fishes, have nevertheless the vertebræ 10 + 14 = 24, as in typical percoids, toward which they form a gradual transition.

Glaucus Klein, 1775, 38.

Saurus Browne, 1789, 48.

Rhomboida Browne, 1789, 48.

Trachurus (Plumier) Lacépède, 1802, 72.

*Trachinotus*²²⁶ Lacépède, 1802, 61.

Pelamis (Plumier) Lacépède, 1802, 72.

Cæsiomorus Lacépède, 1802, 61.

Caranx Lacépède, 1802, 60.

Scomberoides Lacépède, 1802, 60.

Centronotus Lacépède, 1802, 62.

Acanthinion Lacépède, 1803, 64.

Gallus Lacépède, 1803, 64.

Argyreiosus Lacépède, 1803, 64.

Selene Lacépède, 1803, 64.

Guaperva (Plumier) Lacépède, 1803, 72.

*Hypacantha*²²⁷ Rafinesque, 1810, 80.

Trachurus Rafinesque, 1810, 79.

Tricropterus Rafinesque, 1810, 79.

Hypodis Rafinesque, 1810, 79.

Naucrates Rafinesque, 1810, 80.

Alectis Rafinesque, 1815, 88.

Baillonus Rafinesque, 1815, 89.

Orcynus Rafinesque, 1815, 89.

Seriola Cuvier, 1817, 105.

Citula Cuvier, 1817, 104.

Atropus (Cuvier) Oken, 1817, 105.

Lichia Cuvier, 1817, 105.

Blepharis Cuvier, 1817, 105, 129.

Vomer Cuvier, 1817, 105.

TERATICTHYS König, 1825, 172.

Micropteryx Agassiz, 1829, 132.

Scyris Cuvier, 1829, 129.

Olistus Cuvier, 1829, 129.

Chorinemus Cuvier & Valenciennes,
1832, 137.

Pompilus Minding, 1832, 140.

Gallichthys Cuvier & Valenciennes, 1833,
178.

Porthmeus Cuv. & Val., 1833, 178.

Nauclerus Cuv. & Val., 1833, 178.

Hynniss Cuv. & Val., 1833, 178.

ACANTHONEMUS Agassiz, 1834, 180.

CARANGOPSIS Agassiz, 1835, 181, 218.

Platysomus Swainson, 1839, 201.

Zonichthys Swainson, 1839, 200.

Alepes Swainson, 1839, 200.

Elagatis Bennett, 1840, 206.

Paropsis^{227a} Jenyns, 1842.

DUCTOR Agassiz, 1844, 218.

PLEIONEMUS Agassiz, 1844, 218.

ARCHÆUS Agassiz, 1844, 218.

Xystophorus Richardson, 1844, 223.

*Carangus*²²⁸ Agassiz, 1845.

*Selenia*²²⁹ Bonaparte, 1845, 226.

²²⁶ Often corrected to *Trachynotus*.

²²⁷ Misprinted *Hypacantus*; corrected in appendix to *Hypacantha*.

^{227a} "Voyage 'Beagle,'" 65; orthotype *P. signata* Jenyns. (Omitted in "Genera of Fishes.")

²²⁸ This is the first use of *Carangus* as a generic name. No explanation is given, merely a reference to Cuvier & Valenciennes. The presumable type is *Scomber carangus* Bloch.

²²⁹ The name *Selenia* is preoccupied; *Uraspis*, with the bucklers hooked forward is a distinct genus.

- Carangoides** Bleeker, 1851, 248.
Selar³³⁰ Bleeker, 1851, 248.
Decapterus Bleeker, 1851, 248.
Gnathanodon Bleeker, 1851, 247.
Leioglossus Bleeker, 1851, 248.
Megalaspis Bleeker, 1851, 248.
Selaroides Bleeker, 1851, 248.
Leptaspis Bleeker, 1852, 250.
Carangichthys Bleeker, 1852, 250.
Seriolichthys Bleeker, 1854, 255.
Thynnus Gronow, 1854, 259.
Trachurus Gronow, 1854, 259.
VOMEROPSIS Heckel, 1854, 259.
Uraspis Bleeker, 1855, 264.
Bothrolæmus Holbrook, 1855, 265.
ALPICHTHYS Steindachner, 1859, 298.
Carangus³³¹ Girard, 1859, 291.
Doliodon Girard, 1859, 291.
Chloroscombrus Girard, 1859, 291.
ARCHÆOIDES Rath, 1859, 292.
Decaptus Poey, 1861, 309.
Blepharichthys Gill, 1861, 302.
Hemicarax³³² Bleeker, 1862.
Carangops Gill, 1862, 316.
Trachurops Gill, 1862, 315.
Gymnepignathus Gill, 1862, 316.
Eustomatodus Gill, 1862, 316.
Evepigymnus Gill, 1862, 316.
Paratractus Gill, 1862, 317.
Halatractus Gill, 1862, 317.
Naucratopsis Gill, 1862, 317.
Irex Valenciennes, 1862, 320.
Glaucus (Klein) Bleeker, 1863, 321.
Oligoplites Gill, 1863, 324.
Micropus Kner, 1868, 352.
PSEUDOVOMER Sauvage, 1870, 359.
DESMICHTHYS Sauvage, 1877, 392.
ACANTHONEMOPSIS Bosniaski, 1878, 393.
PAREQUULA Sauvage, 1880, 406.
Lepidomegas Thominot, 1880, 406.
Hypocaranx Klunzinger, 1884, 429.
Parona Berg, 1895, 466.
Zalocys Jordan & McGregor, 1898, 482.
Campogramma Regan, 1903, 505.
Rastrum Fowler, 1904, 507.
Rhaphiolepis Fowler, 1905, 512.
Vexillicaranx Fowler, 1905, 512.
Elaphotoxon Fowler, 1905, 512.
Eleria Jordan & Seale, 1905, 514.
Glaucus (Klein) Fowler, 1906, 517.
Pampanoa Fowler, 1906, 517.
Ulua Jordan & Snyder, 1908, 528.
Glaucus (Klein) Jordan & Hubbs, 1917, 562.
Orqueta Jordan, 1919, 567.
LOMPOCHITES Jordan, 1920, 571.
Atule³³³ Jordan, 1923.
Longirostrum³³⁴ Wakiya, 1923.
Seriolina^{334a} Wakiya, 1923.

³³⁰ Logotype, by first reviser, *Caranx boops*, hence equivalent to *Trachurops* Gill, which name *Selar* must replace.

³³¹ "*Carangus* Griffith," page 180, "Genera of Fishes," should be suppressed; *Carangues* is merely quoted as a French name.

³³² *Versl. Kong. Akad. Wet.*, 14: 134; orthotype *H. marginatus* Bleeker. (Omitted in "Genera of Fishes.")

³³³ "Fishes of Hawaii," *Carnegie Mus.*, in press; orthotype *Caranx affinis* Rüppell.

³³⁴ Yoshiro Wakiya, "Carangoid Fishes of Japan," *Ms.*, 1923; type *Caranx platessa* Cuvier & Valenciennes.

^{334a} *Loc. cit.*; orthotype *Seriola intermedia* Temminck & Schlege (gill rakers obsolete).

Family 402. NEMATISTIIDÆ (Peacock Fishes)

- Nematistius** Gill, 1862, 316. **Seriolophus** Guichenot, 1867, 345.

Family 403. MENIDÆ

Vertebrae 10 + 15 = 25.

- Mene** Lacépède, 1803, 68. **GASTERONEMUS** Agassiz, 1833, 177.
Meneus Rafinesque, 1815, 90. **GASTERACANTHUS**³³⁵ Agassiz, 1833.

³³⁵ A manuscript name, printed but not adopted by Agassiz, being preoccupied; replaced by *Gastronemus*. *Poissons Fossiles*, 5: 20; orthotype *G. rhomboidalis* Agassiz ms.

Family 404. **POMATOMIDÆ**
(Blue Fishes)

Saltatrix Catesby, 1771, 30.

Pomatomus Lacépède, 1803, 63.

Gonenion Rafinesque, 1810, 80.

Lopharis Rafinesque, 1810, 80.

Temnodon Cuvier, 1817, 106.

Sypterus Eichwald, 1841, 208.

Chromis Gronow, 1854, 259.

Sparactodon Rochebrune, 1880, 405.

LOPHAR Jordan & Gilbert, 1919, 569.

Family 405. **RACHYCENTRIDÆ**
(Sergeant Fishes)

*Rachycentron*³³⁶ Kaup, 1826, 121.

Spinax (Commerson), Cuvier & Valenciennes, 1831, 175.

Elacate Cuvier & Valenciennes, 1831, 129.

Meladerma Swainson, 1839, 200.

³³⁶ Name later corrected to *Rachycentrum*.

Family 406. **LACTARIIDÆ**

Lactarius Cuvier & Valenciennes, 1833, 178.

Platylepes Swainson, 1839, 200.

Family 407. **LEIOGNATHIDÆ**³³⁷

Leiognathus Lacépède, 1803, 64.

Halex Commerson, 1803, 71.

Equula Cuvier, 1817, 105.

Gazza Rüppell, 1835, 184.

Argyrolepes Swainson, 1839, 200.

Secutor Gistel, 1848, 235.

Deveximentum Fowler, 1904, 507.

Eubleekeria Fowler, 1904, 507.

Equulites Fowler, 1904, 507.

*Aurigequula*³³⁸ Fowler, 1918.

³³⁷ The resemblance of *Leiognathus* to *Gerres* seems to be superficial, not indicating any special affinity.

³³⁸ *Proc. Acad. Nat. Sci. Phila.*, 70: 17; orthotype *Leiognathus fasciatus* Fowler.

Family 408. **BATHYCLUPEIDÆ**

A deep-water group of uncertain affinities.

Bathyclupea Alcock, 1891, 454.

Series **KURTIFORMES**

Family 409. **KURTIDÆ**

A single genus of uncertain relationships.

*Kurtus*³³⁹ Bloch, 1786, 44.

³³⁹ Corrected to *Cyrtus* and *Curtus* by authors.

Family 410. **PERCIDÆ**
(Perch)

Perca Linnæus, 1758, 13.

Cernua Schäfer, 1761, 16.

Schraitzer Schäfer, 1761, 16.

Asperulus Schäfer, 1761, 16.

Asper Schäfer, 1761, 16.

Acerina Gildenstädt, 1774, 32.

Percis Klein, 1775, 39.

Asperulus Klein, 1775, 40.

Gymnocephalus Bloch, 1793, 51.

Cephimmus Rafinesque, 1815, 89.

- Zingel** (Cuvier) Oken, 1817, 104.
Sander (Cuvier) Oken, 1817, 104.
Acerina Cuvier, 1817, 104, 125.
*Pogostoma*³⁴⁰ Rafinesque, 1818, 108.
*Aplocentrus*³⁴⁰ Rafinesque, 1819, 110.
*Leucops*³⁴⁰ Rafinesque, 1819, 110.
*Pomacampus*³⁴⁰ Rafinesque, 1820, 111.
Stizostedion³⁴¹ Rafinesque, 1820, 111.
Sandat Cloquet, 1827, 122.
Cernua Fleming, 1828, 123.
Sandrus Stark, 1828, 123.
Cingla Stark, 1828, 123.
Lucioperca Cuvier & Valenciennes, 1828, 124.
Aspro Cuv. & Val., 1828, 124.
Sandat Bory de St. Vincent, 1828, 124.
Acerina Cuvier, 1820, 129.
Schilus Krynicki, 1832, 176.
Podocys Agassiz, 1838, 191.
Percarina Nordmann, 1840, 207.
Pachygaster Giebel, 1847, 231.
Peroptera Gistel, 1848, 237.
Gremilla Gistel, 1848, 234.
Sandroserrus Gervais, 1852, 251.
Asperulus (Klein) Gill, 1861, 303.
Leptoperca Gill, 1861, 306.
Cynoperca Gill & Jordan, 1877, 390.
Mimoperca Gill & Jordan, 1877, 390.
Mioplosus Cope, 1877, 388.
Epitrachys Schulze, 1889, 448.
Podocephalus (Agassiz) Woodward, (1845) 1901, 224.
Brachygnathus (Agassiz) Woodward, (1845) 1901, 224.
Cæloperca (Agassiz) Woodward, (1845) 1901, 224.
Percostoma (Agassiz) Woodward, (1845) 1901, 224.
Cristigorina Leriche, 1905, 515.
Eoperca Jordan, 1919, 568.

³⁴⁰ All these genera of Rafinesque appear to be mythical, an opinion derived from drawings in his private notebook preserved in the Smithsonian Institution.

³⁴¹ Name corrected to *Stizostethium*.

Family 411. **ETHEOSTOMIDÆ**

(Darters; Crawl-a-bottoms)

These dwarf or rather concentrated perches are peculiar to the waters of the eastern United States. They differ from the *Percidæ* in having six branchiostegals instead of seven, the head unarmed and the air-bladder obsolete or nearly so. Anal spines two, rarely one.

- Etheostoma** Rafinesque, 1819, 110.
Diplesion Rafinesque, 1820, 111.
Percina Haldeman, 1842, 211.
Pileoma Dekay, 1842, 210.
Boleosoma Dekay, 1842, 210.
Pœcilosoma Agassiz, 1850, 245.
Hadropterus Agassiz, 1854, 254.
Pœcilichthys Agassiz, 1854, 254.
Catonotus Agassiz, 1854, 254.
Hyostoma Agassiz, 1854, 254.
Oligocephalus Girard, 1859, 290.
Arlina Girard, 1859, 290.
Estrella Girard, 1859, 290.
Boleichthys Girard, 1859, 290.
Alvordius Girard, 1859, 290.
Alvarius Girard, 1859, 290.
Pleurolepis (Agassiz) Putnam, 1863, 328.
Microperca Putnam, 1863, 328.
Hololepis^{341a} (Agassiz) Putnam, 1863.
Nothonotus (Agassiz) Putnam, 1863, 328.
Cottogaster Putnam, 1863, 328.
Asproperca Heckel, 1860, 295.
Hypohomus Cope, 1870, 355.
Astichthys Vaillant, 1873, 371.
Plesioperca Vaillant, 1873, 371.
Imostoma Jordan, 1877, 390.
Ammocrypta Jordan, 1877, 390.
Nanostoma (Putnam) Jordan, 1877, 390.
Ericosma Jordan & Copeland, 1877, 390.
Rheocrypta Jordan, 1877, 390.
Vaillantia Jordan, 1878, 395.
Ioa Jordan & Brayton, 1878, 395.

^{341a} Omitted in "Genera of Fishes"; type *Boleosoma barratti* Holbrook (near *Boleichthys* or identical with it).

Ulocentra Jordan, 1878, 395.
Serraria Gilbert, 1884, 428.
Crystallaria Jordan & Gilbert, 1885, 432.
Rhothœca Jordan, 1885, 432.
Copelandellus Jordan & Evermann, 1896, 474.
Psychromaster J. & E., 1896, 474.

Claricola J. & E., 1896, 474.
Nivicola Jordan, 1896, 474.
Rafinesquiellus Jordan & Evermann, 1896, 474.
Torrentaria J. & E., 1896, 474.
Swainia Jordan & Evermann, 1896, 474.
Vigil Jordan, 1919, 567.

Family 412. PERCICHTHYIDÆ

This family and the next are confined to rivers of the Chilean region. They are intermediate between *Percidæ* and *Moronidæ*.

Percichthys Girard, 1854, 258.
Deuteropterus Gill, 1861, 304.

Percosoma Gill, 1861, 304.

Family 413. PERCILIIDÆ

Percilia Girard, 1854, 258.

Family 414. APOGONIDÆ (*Amiidæ*; *Chilodipteridæ*)

(Cardinal Fishes)

Anal spines two, rarely one; vent normal in position.

Amia Gronow, 1763, 20.
Apogon Lacépède, 1802, 62.
Cheilodipterus³⁴² Lacépède, 1802, 63.
Aspro (Commerson) Lacépède, 1803, 70.
Ostorhinchus Lacépède, 1803, 63.
Dipterodon Lacépède, 1803, 63.
Epigonus Rafinesque, 1810, 83.
Clodipterus Rafinesque, 1815, 89.
Macrolepis Rafinesque, 1815, 89.
Pomatomus (Risso) Cuvier & Valenciennes, 1828, 124.
Apogonoides Bleeker, 1849, 240.
Microichthys Rüppell, 1852, 251.
Amia Gronow, 1854, 259.
Apogonichthys Bleeker, 1854, 256.
Monoprion Poey, 1860, 298.
Glossamia Gill, 1863, 323.
Lepidamia Gill, 1863, 323.
Archamia Gill, 1863, 323.
Paramia Bleeker, 1863, 322.
Pseudamia Bleeker, 1865, 336.
Mionorus Krefft, 1867, 346.
Pristiapogon Klunzinger, 1870, 358.
Dinolestes³⁴³ Klunzinger, 1872, 366.

Lanioperca³⁴³ Günther, 1872, 365.
Neosphyraena³⁴³ Castelnau, 1872, 362.
Vincentia Castelnau, 1872, 363.
Percamia Bleeker, 1876, 382.
Telescopus Bleeker, 1876, 382.
Gulliveria Castelnau, 1878, 393.
Pomatomichthys Giglioli, 1880, 402.
Mónosira Poey, 1881, 417.
Melanostoma Steindachner & Döderlein, 1883, 426.
Synagrops Günther, 1887, 437.
Telescopias Jordan & Snyder, 1901, 495.
Fowleria Jordan & Evermann, 1903, 504.
Galeagra Heller & Snodgrass, 1903, 503.
Foa Jordan & Seale, 1905, 514.
Hynnodus Gilbert, 1905, 513.
Gymnapogon Regan, 1905, 515.
Astrapogon Fowler, 1907, 523.
Siphamia Weber, 1909, 534.
Rhabdamia Weber, 1909, 534.
Neamia Smith & Radcliffe, 1912, 544.
Amioides Smith & Radcliffe, 1912, 544.
Nectamia Jordan, 1917, 562.
Kystramia Jordan, 1917, 562.

³⁴² Written *Chilodipterus* by authors.

³⁴³ These three generic names refer to the same fish, *Dinolestes muelleri*, of Australia.

Zoramia Jordan, 1917, 562.

ERITIMA Jordan & Gilbert, 1919, 569.

Adenapogon³⁴⁴ McCulloch, 1921.

Brephamia³⁴⁵ Jordan, 1922.

Scombrolabrax³⁴⁷ Roule, 1922.

Maccullochina³⁴⁶ Jordan, 1923.

Scepterias³⁴⁸ Jordan & Jordan, 1923.

³⁴⁴ *Records Austral. Mus.*, 13: 132; orthotype *Apogon roseigaster* Ramsay & Ogilby.

³⁴⁵ "Fishes of Hawaii," *Mem. Carnegie Museum*, 43; orthotype *Amia parvula* Smith & Radcliffe.

³⁴⁶ *Loc. cit.* 44; orthotype *Scombrops serratospinosa* Smith & Radcliffe.

³⁴⁷ Roule, *Bull. Sci. Oceanogr.*, No. 408, March 23, 1922; type *S. heterolepis* Roule; a deep-sea fish from Madeira. Spinous dorsal deeply divided; anal spine single; scales cycloid, very irregular as to size.

³⁴⁸ *Op. cit.* 44; orthotype *S. fragilis* Jordan & Jordan, from Hawaii.

Family 415. SCOMBROPIDÆ

Allied to the *Apogonidæ*, but with three or four anal spines. The number in the *Apogonidæ*, as in the *Percidæ* and *Etheostomatidæ*, is but two or rarely one.

Scombrops Temminck & Schlegel, 1845, 227.

Sphyrænops Poey, 1860, 299.

Latebrus Poey, 1860, 298.

Amiichthys Poey, 1886, 435.

Hypoclydonia Goode & Bean, 1895, 468.

Apogonops Ogilby, 1896, 475.

Parasphyrænops Bean, 1912, 542.

Neoscombrops Gilchrist, 1922. (See Index.)

Family 416. ACROPOMATIDÆ

Three anal spines; vent anterior.

Acropoma Temminck & Schlegel, 1843, 216.

Brephostoma Alcock, 1889, 444.

Parascombrops³⁴⁹ Alcock, 1890, 450.

Oxyodon Brauer, 1906, 517.

³⁴⁹ A synonym of *Acropoma*.

Family 417. AMBASSIDÆ

Chanda Hamilton, 1822, 114.

Ambassis (Commerson) Cuvier & Valenciennes, 1828, 124.

Priopis (Kuhl & Van Hasselt) Cuvier & Valenciennes, 1830, 174.

Hamiltonia Swainson, 1839, 200.

Bogoda Bleeker, 1853, 253, 275.

Parambassis Bleeker, 1874, 374.

Pseudambassis Bleeker, 1876, 383.

Acanthoperca Castelnau, 1878, 393.

Pseudoambassis Castelnau, 1878, 393.

Tetracentrum Macleay, 1883, 425.

Family 418. CENTRARCHIDÆ (*Eucentrarchidæ*; *Micropteridæ*)

(Black Bass; Sun Fishes; Pumpkin-seeds)

The name *Centrarchus* of Cuvier was framed for those sun fishes which had more than three anal spines. The first species mentioned (*æneus*) is an *Ambloplites*, and this, it appears, was the only one actually seen by the author. But he also includes, without question, the *Labrus irideus* and *Labrus macropterus* of Lacépède, *irideus* being formally indicated as type of *Centrarchus* by Agassiz in 1854, by Holbrook in 1860, and by Jordan &

Gilbert in 1882. There seems no reason for changing this arrangement as with Culver *irideus* was not a "*species inquirenda*."

- | | |
|--|--|
| Micropterus Lacépède, 1803, 63. | Archoplites Gill, 1861, 305. |
| Pomoxis Rafinesque, 1818, 109. | Mesogonistius Gill, 1864, 332. |
| Calliurus Rafinesque, 1819, 110. | Chænobryttus Gill, 1864, 332. |
| Lepomis ³⁵⁰ Rafinesque, 1819, 110. | Hyperistius Gill, 1864, 332. |
| Pomotis Rafinesque, 1819, 110. | Eucentrarchus Gill, 1864, 332. |
| Apomotis Rafinesque, 1819, 110. | Acantharchus Gill, 1864, 332. |
| Aplesion Rafinesque, 1820, 111. | Enneacanthus Gill, 1864, 332. |
| Ichthelis ³⁵¹ Rafinesque, 1820. | Hemioplites Cope, 1867, 344. |
| Dioplites Rafinesque, 1820, 111. | Glossoplites ³⁵³ Jordan, 1876. |
| Nemocampsis Rafinesque, 1820, 111. | Helioperca Jordan, 1877, 390. |
| Ambloplites Rafinesque, 1820, 111. | Xystroplites Jordan, 1877, 388. |
| Aplites Rafinesque, 1820, 111. | Erichæta Jordan, 1877, 391. |
| Telipomis Rafinesque, 1820, 111. | Eupomotis Gill & Jordan, 1877, 389. |
| Huro Cuvier & Valenciennes, 1828, 124. | Xenotis Jordan, 1877, 390. |
| Centrarchus Cuvier, 1829, 126. | Copelandia Jordan, 1877, 390. |
| Pomotis Cuvier, 1829, 126. | PLIOPLARCHUS Cope, 1883, 422. |
| Gristes ³⁵² Cuvier, 1829, 126. | OLIGOPLARCHUS Cope, 1891, 454. |
| Bryttus Cuvier & Valenciennes, 1831, 137. | CENTRARCHITES Cockerell, 1919, 566. |

³⁵⁰ Later corrected to *Lepiopotomus*, an unacceptable alteration.

³⁵¹ *Ichthyologia Ohiensis*, 27; type *Labrus auritus* Linnæus; same as *Lepomis*. (Omitted in "Genera of Fishes.")

³⁵² Later written *Grystes*.

³⁵³ "Manual Vertebrates," Ed. 1, 223; type *Calliurus melanops* Girard; same as *Chænobryttus* Gill. (Omitted in "Genera of Fishes.")

Family 419. ELASSOMIDÆ

(Dwarf Sun Fishes)

Elassoma Jordan, 1877, 390.

Family 420. KUHLIIDÆ

(Mountain Bass; Sesele)

- | | |
|---|---|
| Kuhlia Gill, 1861, 304. | Platysoma ³⁵⁴ (Liénard) Scudder, (1832) 1882. |
| Moronopsis Gill, 1863, 324. | Herops De Vis, 1885, 431. |
| Nannoperca Günther, 1862, 307. | Boulengerina Fowler, 1904, 507, 523. |
| Paradules Bleeker, 1863, 322. | Safole Jordan, 1912, 543. |
| Paradules Klunzinger, 1872, 366. | Parakuhlia Pellegrin, 1913, 549. |
| Edelia Castelnau, 1873, 368. | |
| Microperca Castelnau, 1873, 368. | |

³⁵⁴ *Platysoma* Liénard (as "*Platysome*"), *Proc. Zool Soc. Lond.*, 1832, II, 112; type *Dules caudavittatus* Cuvier & Valenciennes; latinized by Scudder 1882; name preoccupied; same as *Safole* Jordan.

Family 421. CENTROPOMIDÆ

(Robalos)

- | | |
|--|---|
| Macrocephalus Browne, 1789, 47. | Macrocephalus (Browne) Bleeker, 1876, 383. |
| Centropomus Lacépède, 1803, 63. | |
| Oxylabrax Bleeker, 1876, 382. | Platycephalus Ribeiro, 1902, 500. |

Family 422. **LATIDÆ**

This group and the next two are usually united with the *Serranidæ* (including *Epinephelidæ*), forming thus a vast and divergent family, which for our purpose may be conveniently separated into some of its component parts. These are usually and perhaps justly regarded as sub-families. Boulenger places *Lates* with the *Centropomidæ* and Regan adds the *Ambassidæ* also.

Lates Cuvier & Valenciennes, 1828, 124.

Psammoperca Richardson, 1844, 223.

Cnidon Müller & Troschel, 1849, 243.

Hypopterus Gill, 1861, 304.

Pseudolates Alleyne & Macleay, 1877, 387.

PARALATES Sauvage, 1883, 425.

PLATYLATES Storms, 1887, 439.

PSEUDOLATES Priem, 1898, 483.

PROLATES Priem, 1899, 487.

Luciolates Boulenger, 1914, 552.

Family 423. **MORONIDÆ**

(White Bass)

Maxillary without supplemental bone. The fossil forms referred to this group and the preceding can not be placed with accuracy.

Labrax Klein, 1775, 39.

Morone Mitchell, 1814, 86.

Roccus Mitchell, 1814, 86.

Lepibema Rafinesque, 1820, 111.

Labrax (Klein) Cuvier, 1829.

SMERDIS Agassiz, 1833, 177.

CYCLOPOMA Agassiz, 1833, 177.

DAPALIS Gistel, 1848, 237.

PLATACANTHUS Fischer von Waldheim, 1850, 246.

Dicentrarchus Gill, 1860, 296.

Percalates Ramsay & Ogilby, 1887, 439.

Chrysoperca Fowler, 1907, 523.

Family 424. **OLIGORIDÆ**

Maxillary with a supplemental bone, as in *Epinephelus*. This group is very close to the *Moronidæ*, both being usually merged in the *Serranidæ*.

Perca-Labrax Temminck & Schlegel,

1842, 213.

Lateobrax Bleeker, 1857, 274.

Percalabrax (Schlegel) Günther, 1859, 291.

Oligorus Günther, 1859, 291.

Odontolabrax Bleeker, 1873, 367.

Homodemus De Vis, 1885, 431.

Malakichthys Döderlein, 1883, 426.

Satsuma Smith & Pope, 1906, 520.

Family 425. **NIPHONIDÆ**

Nippon³⁵⁵ Cuvier & Valenciennes, 1828.

³⁵⁵ Cuvier & Valenciennes, *Hist. Poss.*, 2: 131; orthotype *Nippon spinosus* Cuvier & Valenciennes. (Omitted in "Genera of Fishes.")

Family 426. **EPINEPHELIDÆ**

(Sea Bass; Groupers; Garrupas)

The great group of genera commonly called percoid (although centering rather around *Epinephelus*, *Perca* being a somewhat aberrant form) is here provisionally divided into several families obviously of very unequal value. Several of them usually and very properly, no doubt, given the rank

of subfamily. Even after the removal of various outlying genera, the *Epinephelidæ* are very much diversified and further subdivision is natural. Whatever rank the divisions may receive, the presence of supplemental maxillary by which character the *Epinephelidæ* are set off from the *Serranidæ* is a matter of importance, perhaps adequate to define a separate family, although in some groups, as the *Centrarchidæ*, it disappears by degrees.

Cugupuguacu Catesby, 1771, 30.

Daba Forskål, 1775, 34.

Louti Forskål, 1775, 34.

*Bodianus*⁸⁸⁶ Block, 1790, 49.

Epinephelus Bloch, 1793, 51.

Grammistes Bloch & Schneider, 1801, 58.

Cephalopholis B. & S., 1801, 59.

Alphestes B. & S., 1801, 59.

Chrysomelanus (Plumier) Lacépède, 1803, 72.

Notognidion Rafinesque, 1810, 80.

Polypriion (Cuvier) Oken, 1817, 104, 117.

*Plectropomus*⁸⁸⁷ (Cuv.) Oken, 1817, 103.

*Rypticus*⁸⁸⁸ Cuvier, 1829, 125.

Macquaria Cuvier & Valenciennes, 1830, 135.

Merou Bonaparte, 1831, 175.

Cerna Bonaparte, 1837, 141, 187.

Uriphaëton Swainson, 1839, 198.

Variola Swainson, 1839, 198.

Cynichthys Swainson, 1839, 198.

Cromileptes Swainson, 1839, 198.

Centrogenys Richardson, 1842, 212.

Aulacocephalus Temminck & Schlegel, 1842, 213.

Myriodon Brisout de Barneville, 1847, 230.

Paschalestes Gistel, 1848, 236.

Serranichthys Bleeker, 1855, 264.

Smecticus Valenciennes, 1855, 266.

Stereolepis Ayres, 1858, 277.

Trachypoma Günther, 1859, 291.

Pogonoperca Günther, 1859, 291.

Anyperodon Günther, 1859, 291.

Promicropterus Gill, 1861, 302.

Liopropoma Gill, 1861, 304.

Dermatolepis Gill, 1861, 304.

Prospinus Poey, 1861, 308.

Siniperca Gill, 1862, 313.

Lioperca Gill, 1862, 315.

Schistorus Gill, 1862, 315.

Gonioplectrus Gill, 1862, 315.

Plectroplites Gill, 1862, 315.

Acanthistius Gill, 1862, 315.

Labroperca Gill, 1862, 315.

Mycteroperca Gill, 1862, 315.

Hyporthodus Gill, 1862, 304.

Chorististium Gill, 1862, 313.

Petrometopon Gill, 1865, 337.

Enneacentrus Gill, 1865, 337.

Trisotropis Gill, 1865, 337.

Plectroperca Peters, 1865, 339.

Priacanthichthys Day, 1868, 349.

Promicrops Poey, 1868, 353.

Eleutheractis Cope, 1871, 361.

Ctenolates Günther, 1871, 361.

Menephorus Poey, 1871, 362.

Murrayia Castelnau, 1872, 362.

Riverina Castelnau, 1872, 362.

Actenolepis Dybowski, 1872, 364.

Bostockia Castelnau, 1873, 368.

Odontolabrax Bleeker, 1873, 367.

Hectoria Castelnau, 1873, 368.

Pikea Steindachner, 1874, 377.

Phaëthonichthys Bleeker, 1876, 382.

Hemilutjanus Bleeker, 1876, 382.

Homalogrystes Alleyne & Macleay, 1877, 387.

Itaiara Vaillant & Bocourt, 1878, 397.

Megaperca Hilgendorf, 1878, 395.

Doderleinia Steindachner, 1883, 426.

Acanthocephalus Döderlein, 1883, 426.

Labracopsis Steindachner & Döderlein, 1883, 426.

Garrupa Jordan & Eigenmann, 1890, 452.

Dinoperca Boulenger, 1895, 466.

Pseudalphestes Boulenger, 1895, 466.

⁸⁸⁶ *Bodianus* belongs here by first restriction, not by tautonymy, as *Bodianus bodianus* is a labroid fish.

⁸⁸⁷ Later written *Plectropoma*.

⁸⁸⁸ Later corrected to *Rhypticus*.

- Pomodon** Boulenger, 1895, 466.
Xystroperca Jordan & Evermann, 1896, 474.
Archoperca J. & E., 1896, 474.
Enneistus J. & E., 1896, 474.
Coreoperca Herzenstein, 1896, 472.
Centristhmus Garman, 1899, 486.
Epinephelides Ogilby, 1899, 487.
Bryttosus Jordan & Snyder, 1900, 490.
Eteliscus J. & S., 1900, 490.
Corusculus J. & E., 1901, 494.⁴
Gilbertella Waite, 1902, 501.
Æthaloperca Fowler, 1904, 507.
Gennadius Jordan & Seale, 1907, 525.
Epelytes Evermann & Radcliffe, 1917, 562.
Mustelichthys Tanaka, 1918, 565.
EMMACHÆRE Jordan & J. Z. Gilbert, 1919, 569.
Rhabdosebastes³⁵⁹ Fowler & Bean, 1922.

³⁵⁹ Fowler & Bean, "Fishes from Formosa and the Philippine Islands," *Proc. U. S. Nat. Mus.*, 62: 60; orthotype *Sebastes stoliczka* Day; same as *Gennadius* Jordan & Seale, both being synonyms of *Centrogenys*. This highly aberrant form with the lower pharyngeals united, bears a deceptive resemblance to species of *Sebastes*.

Family 427. SERRANIDÆ

(Sea Bass)

Supplemental maxillary wanting.

- Anthias** Bloch, 1792, 50.
Hepatus Röse, 1793, 52.
Aylopon Rafinesque, 1810, 80.
Serranus Cuvier, 1817, 103.
Dules Cuvier, 1828, 126.
Centropristes³⁶⁰ Cuvier, 1829, 126.
Dulichthys Bonaparte, 1831, 175.
ACANUS Agassiz, 1838, 191.
Callanthias Lowe, 1839, 195.
Prionodes Jenyns, 1842, 211.
Caprodon Temminck & Schlegel, 1843, 216.
Diplectrum Holbrook, 1855, 265.
Paralabrax Girard, 1856, 269.
LUSPIA Costa, 1858, 574.
Atractoperca Gill, 1861, 305.
Triloburus Gill, 1861, 302.
Brachyrhinus Gill, 1862, 315.
Hypoplectrus Gill, 1862, 315.
Hypoplectrodes Gill, 1862, 315.
Mentiperca Gill, 1862, 314.
Haliperca Gill, 1862, 315.
Gonioperca Gill, 1862, 315.
Pronotogrammus Gill, 1863, 323.
Paranthias Guichenot, 1868, 352.
Holanthias Günther, 1869, 351.
Paracentropristes Klunzinger, 1870, 358.
Pseudoserranus Klunzinger, 1870, 358.
Cæsioperca Castelnau, 1872, 375.
Pseudanthias Bleeker, 1873, 367.
Plectranthias Bleeker, 1873, 367.
Dactylanthias Bleeker, 1873, 367.
Hemianthias Steindachner, 1874, 377.
Neoanthias Castelnau, 1878, 393.
Symphysanodon Bleeker, 1878, 393.
Cratinus Steindachner, 1878, 397.
Colpognathus Klunzinger, 1880, 575.
Bathyanthias Günther, 1880, 403.
PROPERCA Sauvage, 1880, 405.
Creolus Jordan & Gilbert, 1882, 420.
Hyposerranus Klunzinger, 1884, 429.
Neoniphon De Vis, 1885, 431.
Gilbertia³⁶¹ Jordan & Eigenmann, 1890, 452.
Serranellus J. & E., 1890, 452.
Chelidoperca Boulenger, 1895, 466.
Ocyanthias Jordan & Evermann, 1896, 474.
Anagramma Ogilby, 1899, 487.
Grammatonotus Gilbert, 1905, 513.
Sayonara Jordan & Seale, 1906, 518.
Eudulus Fowler, 1907, 523.
Callidulus Fowler, 1907, 523.
Xenanthias Regan, 1908, 529.
Zalanthias Jordan & Richardson, 1910, 536.
Sacura Jordan & Richardson, 1910, 536.

³⁶⁰ Later written *Centropristis*.

³⁶¹ This genus is probably distinct from *Hypoplectrodes*.

Sphenanthias Weber, 1913, 551.
Pteranthias Weber, 1913, 551.
Lepidoperca Regan, 1914, 554.
Serranops Regan, 1914, 554.
Franzia Jordan & Thompson, 1914, 554.
Rosanthias Tanaka, 1917, 563.

Selenanthias Tanaka, 1918, 565.
Leptanthias Tanaka, 1918, 565.
Rhyacanthias³⁶² Jordan, 1921.
Percanthias³⁶³ Tanaka, 1922.
Parosphenanthias Gilchrist, 1922. (See Index.)

³⁶² Jordan, *U. S. Nat. Mus.*, 59: 547; orthotype *R. carlsmithi* Jordan.

³⁶³ Tanaka, *Fishes Japan*, 32: 591; orthotype *Callanthias japonicus* Franz.

Family 428. PLESIOPIDÆ

This family and the next three are closely related, and also allied to the *Anthiinae* among the *Serranidae*.

Plesiops (Cuvier) Oken, 1817, 102.
Pharopteryx Rüppell, 1828, 122, 251.
Trachinops³⁶⁴ Günther, 1861.
Ruppelia Castelnau, 1873, 367.
Bleekeria Castelnau, 1873, 368.

Paraplesiops Bleeker, 1875, 378, 383.
Cirrhiptera (Kuhl & Van Hasselt)
 Bleeker, 1876, 383.
Tosana Smith & Pope, 1906, 520.
Belonepterygion McCulloch, 1915, 556.

³⁶⁴ Günther, *Cat. Fish.*, 3: 366; type *Trachinops taniatus* Günther. (Omitted in "Genera of Fishes.")

Family 429. ACANTHOCLINIDÆ

Acanthoclinus Jenyns, 1842, 212.

Acanthoplesiops Regan, 1912, 545.

Family 430. PSEUDOPLESIOPIDÆ

Pseudoplesiops Bleeker, 1858, 278.

Family 431. PSEUDOCHROMIDÆ

Pseudochromis Rüppell, 1835, 184.
Labristoma Swainson, 1839, 200.
Cichlops Müller & Troschel, 1858, 278.
Gramma Poey, 1868, 353.
Dampieria Castelnau, 1875, 378.
Pseudogramma Bleeker, 1875, 378.

Leptochromis Bleeker, 1876, 382.
Labracinus (Schlegel) Bleeker, 1876, 383.
Stigmatonotus Peters, 1876, 386.
Onar De Vis, 1885, 431.
Nesiotes De Vis, 1884, 427.
Nematochromis Weber, 1913, 551.

Family 432. RHEGMATIDÆ

Rhegma Gilbert, 1900, 490.

Family 433. PRIACANTHIDÆ

(Big-eyes)

Abuhamrur Forskål, 1771, 34.
Priacanthus Cuvier, 1817, 104.
Boops Gronow, 1854, 258.

Bogota Blyth, 1860, 294, 383.
Pseudopriacanthus Bleeker, 1869, 353.

Family 434. PEMPHERIDÆ

(Catalufas)

A group of uncertain relationships, usually placed near the scombroid fishes.

Pempheris Cuvier, 1829, 128.
Parapriacanthus Steindachner, 1870, 360.
Pempherichthys Klunzinger, 1871, 361.
Leptobrama Steindachner, 1878, 397.

Neopempheris Macleay, 1881, 416.
Priacanthopsis Fowler, 1906, 517.
Catalufa Snyder, 1911, 541.
Liopempheris Ogilby, 1913, 549.

Family 435. **DIPLOPRIONIDÆ**

Diploprion (Kuhl & Van Hasselt) Cuvier
& Valenciennes, 1828, 124.

Family 436. **LOBOTIDÆ**

(Flashers)

Coius Hamilton, 1822, 172.**Datnioides** Bleeker, 1852, 252.**Lobotes** Cuvier, 1829, 128.**Verrugato**^{364a} Jordan, 1923.

^{364a} *Verrugato* Jordan, 1924; new generic name; type *Lobotes pacificus* Gilbert; distinguished by the feebleness of head serrations.

Family 437. **GLAUCOSOMIDÆ**

Glaucosoma Temminck & Schlegel, 1843,
216.

Breviperca³⁶⁵ Castelnau, 1873, 378.**Reganichthys** Ogilby, 1915, 557.

³⁶⁵ Young of *Glaucosoma*.

Family 438. **ARRIPIDÆ****Arripis** Jenyns, 1842, 211.

Homodon Brisout de Barneville, 1847,
230.

Family 439. **XENICHTHYIDÆ**

These genera are placed by Regan among the *Pomadasidæ*.

Xenichthys Gill, 1863, 324.**Xenocys** Jordan & Bollman, 1889, 447.**Xenistius** Jordan & Gilbert, 1882, 420.Family 440. **HOPLOPAGRIDÆ****Hoplopagrus** Gill, 1861, 304Family 441. **LUTIANIDÆ**

(Snappers)

To this family Regan refers the allies of *Cæcio*, together with *Aphareus*, *Propoma*, and *Hoplopagrus*.

Salpa Catesby, 1771, 30.*Turdus* Catesby, 1771, 30.*Naqua* Forskål, 1771, 34.*Anthea* Catesby, 1771, 31.*Hobar* Forskål, 1775, 34.**Lutianus**³⁶⁶ Bloch, 1790, 49.*Scienus* (Commerson) Lacépède, 1802, 69.*Sarda* (Plumier) Lacépède, 1802, 72.*Pagrus* (Plumier) Lacépède, 1803, 72.*Sargus* Plumier, 1803, 72.**Diacope** Cuvier, 1815, 94.

Mesoprion Cuvier & Valenciennes, 1828,
124.

Etelis Cuv. & Val., 1828, 124.**Aprion** Cuv. & Val., 1830, 135.**Apsilus** Cuv. & Val., 1830, 135.**Elastoma** Swainson, 1839, 198.

Chætopterus Temminck & Schlegel, 1844,
223.

Genyoroge Cantor, 1849, 241.**Pristipomoides** Bleeker, 1852, 250.**Macrops** Duméril, 1856, 269.**Neomænis** Girard, 1859, 291.**Macolor** Bleeker, 1860, 294.**Ocyurus** Gill, 1862, 315.**Proamblys** Gill, 1862, 315.

³⁶⁶ Also spelled *Lutjanus*.

Rhomboplites Gill, 1862, 315.
Platyinius³⁶⁷ Gill, 1862, 315.
Hypoplites Gill, 1862, 315.
Evoplites Gill, 1862, 315.
Tropidinius (Gill) Poey, 1868, 353.
Neomesoprion Castelnau, 1875, 378.
Rabirubia Jordan & Fesler, 1893, 462.
Raizero Jordan & Fesler, 1893, 462.
Bowersia³⁶⁷ Jordan & Evermann, 1903, 504.
Bennettia Fowler, 1904, 507.

Parkia Fowler, 1904, 507.
Etelides Jordan & J. C. Thompson, 1905, 514.
Rooseveltia Jordan & Evermann, 1906, 519.
Ulaula³⁶⁸ Jordan & W. F. Thompson, 1911.
Etelinus Jordan & W. F. Thompson, 1911, 539.
Vegetichthys Tanaka, 1918, 565.
Rhombolitoides³⁶⁹ Fowler, 1918.

³⁶⁷ *Platyinus* and *Bowersia* are apparently synonymous with *Pristipomoides*.

³⁶⁸ Jordan & W. F. Thompson, *Proc. U. S. Nat. Mus.*, 39: 459, 1911; type *Bowersia ulaula* Jordan & Evermann, *Chaetopterus sieboldi* Bleeker; replaces *Chaetopterus* Temminck & Schlegel, preoccupied.

³⁶⁹ Fowler, *Proc. Ac. Nat. Sci. Phila.*, 70: 33; orthotype *R. megalops* Fowler. (Omitted in "Genera of Fishes.")

Family 442. VERILIDÆ

Verilus Poey, 1860, 298.

Family 443. APHAREIDÆ

Aphareus Cuvier & Valenciennes, 1830, 135.

Family 444. POMADASIDÆ (*Hæmulidæ*; *Pristipomidæ*) (Grunts)

Ghanan Forskål, 1775, 34.
Gaterin Forskål, 1775, 34.
Cæzio Lacépède, 1802, 61.
Plectorhinchus³⁷⁰ Lacépède, 1802, 61.
Pomadasys Lacépède, 1803, 64.
Cheloniger (Plumier) Lacépède, 1803, 73.
Diagramma Cuvier, 1815, 94.
Scolopsis³⁷¹ Cuvier, 1815, 94.
Pristipomus³⁷² (Cuvier) Oken, 1817, 103.
Diabasis Desmarest, 1823, 116.
Anomalodon Bowdich, 1825, 119.
Hæmulon³⁷³ Cuvier, 1829, 128.
Conodon Cuvier & Valenciennes, 1830, 135.
Lycogenis (Kuhl & Van Hasselt) Cuv. & Val., 1830, 174.
Hapalogenys Richardson, 1844, 222.
Pinjalo Bleeker, 1845, 225.
Heterodon Bleeker, 1845, 225.
Heterognathodon Bleeker, 1848, 233.

Hyperoglyphe Günther, 1859, 291.
Odontonectes Günther, 1859, 291.
Orthopristis Girard, 1859, 291.
Apostata (Heckel) Canestrini, 1860, 294.
Anisotremus Gill, 1860, 301.
Orthostæchus Gill, 1862, 316.
Microlepidotus Gill, 1862, 316.
Genytremus Gill, 1862, 316.
Genyatrems Gill, 1862, 316.
Pristocantharus Gill, 1862, 316.
Brachydeuterus Gill, 1862, 313.
Anarmostus Scudder, 1863, 328.
Bathystoma Scudder, 1863, 328.
Brachygenys (Scudder) Poey, 1868, 353.
Hæmulopsis Steindachner, 1869, 355.
Parapristipoma Bleeker, 1873, 367.
Paracæzio Bleeker, 1875, 378.
Paraconodon Bleeker, 1876, 382.
Gymnocæzio Bleeker, 1876, 382.
Liocæzio Bleeker, 1876, 382.

³⁷⁰ Written *Plectorhynchus* by authors.

³⁷¹ Later called *Scolopsides*.

³⁷² Later written by Cuvier *Pristipoma*.

³⁷³ Also written incorrectly *Hæmylum*.

Pterocæsius Bleeker, 1876, 382.
Pseudopristipoma Sauvage, 1880, 405.
Propoma Günther, 1880, 403.
Lythrulon Jordan & Swain, 1884, 428.
Eurumetopos Morton, 1887, 438.
Isaciella Jordan & Fesler, 1893, 462.
Isacia Jordan & Fesler, 1893, 462.
Rhonciscus Jordan & Evermann, 1896, 472.
Rhencus J. & E., 1896, 472.

Evapristis J. & E., 1896, 472.
Parascolopsis Boulenger, 1901, 492.
Mylacrodon Regan, 1903, 505.
Euelaticthys Fowler, 1904, 508.
Spilotichthys Fowler, 1904, 508.
Diagrammella Pellegrin, 1912, 544, 549.
Leptoscolopsis Tanaka, 1915, 558.
Otoperca Boulenger, 1916, 558.
Dacymba Jordan & Hubbs, 1917, 562.

Family 445. THERAPONIDÆ

Djabub Forskål, 1775, 34.
Therapon⁸⁷⁴ Cuvier, 1817, 104.
Coius Hamilton, 1822, 172.
Helotes Cuvier, 1829, 127.
Pelates Cuvier, 1829, 126.
Pterapon Gray, 1833, 139, 179.
Mesopristes⁸⁷⁵ Bleeker, 1845, 225, 382.

Datnioides (Brisout de Barneville)
 Canestrini, 1860, 294.
Pseudohelotes Guimaraës, 1882, 419.
Autisthes De Vis, 1885, 431.
Hephæstus De Vis, 1885, 431.
Plagiogeneion Forbes, 1890, 450.
Eutherapon Fowler, 1904, 508.

⁸⁷⁴ Misprinted *Terapon*.

⁸⁷⁵ Replaces *Datnia* Cuvier & Valenciennes, which is not the same as *Datnia* Cuvier, the latter a synonym of *Sparus* Linnæus.

Family 446. BANJOSIDÆ

Anoplus Temminck & Schlegel, 1842, 213. **Banjos** Bleeker, 1876, 382.

Family 447. LETHRINIDÆ

Schour Forskål, 1775, 34.
Lethrinus Cuvier, 1829, 128.
Pentapus⁸⁷⁶ Cuvier & Valenciennes, 1830, 258.
Monotaxis Bennett, 1830, 136.
Leiopsis Bennett, 1830, 174.

Sphærodon Rüppell, 1830, 184.
Mænioides⁸⁷⁷ Richardson, 1843.
Maina Gistel, 1848, 236.
Lethrinella Fowler, 1904, 508.
Lethrinichthys Jordan & Thompson, 1912, 544.

⁸⁷⁶ *Pentapus* is transferred (with its synonyms, *Leiopsis* and *Mænoides*) from the *Pomadasidæ* to this group by Regan.

⁸⁷⁷ Richardson, "Icones Piscium," 8; logotype *M. aurofrenatus* Richardson = *Sparus vittatus* Cuvier & Valenciennes, a synonym of *Pentapus*. (Omitted in "Genera of Fishes.") (McCulloch.)

Family 448. NEOLETHRINIDÆ

Palate and whole roof of mouth said to be covered with small molar teeth.

Neolethrinus Castelnau, 1875, 378.

Family 449. SPARIDÆ (Pargos)

The genera related to *Sparus* are very differently distributed by Regan from a study of the skeletons. The present arrangement, mainly according

dentition, approximates more nearly the earlie rarrangement of Günther and is at least not unnatural. Regan adds to this group all the Mediterranean genera (*Boops*, *Scatharus*, *Oblada*, etc.) here placed in *Girellidæ*. He also adds *Dentex* and its relatives, leaving *Nemipterus* (and its synonyms) with *Scolopsis* and *Heterognathodon* to form a separate family of *Nemipteridæ*.

Sparus Linnæus, 1758, 13.

Cynædus Gronow, 1763, 19.

Aurata Catesby, 1771, 30.

Sargus Klein, 1775, 39.

Cynædus (Gronow) Scopoli, 1777, 42.

Mylio (Commerson) Lacépède, 1802, 70.

Diplodus Rafinesque, 1810, 82.

Sargus Cuvier, 1817, 102.

Pagrus Cuvier, 1817, 103.

Aurata (Cuvier) Oken, 1817, 103.

Labeo Bowdich, 1825, 118.

Aurata Risso, 1826, 120.

Charax Risso, 1826, 173.

Daurada Stark, 1828, 123.

Pagellus Cuvier, 1828, 128.

*Datnia*³⁷⁸ Cuvier, 1829, 126.

Chrysophris³⁷⁹ Cuvier, 1829, 128.

Boridia³⁸⁰ Cuvier & Valenciennes, 1830, 135.

SPARNODUS Agassiz, 1838, 191.

Chrysoblephus Swainson, 1839, 199.

SPHÆRODUS Agassiz, 1839, 194.

Argyrops Swainson, 1839, 199.

Lithognathus Swainson, 1839, 199.

Calamus Swainson, 1839, 199.

SCIÆNURUS Agassiz, 1845, 223.

RADAMAS Münster, 1846, 229.

ASIMA Giebel, 1848, 233, 242.

Cæso Gistel, 1848, 235.

Denius Gistel, 1848, 237.

Eudynama Gistel, 1848, 238.

TRIGONODON Sismonda, 1849, 244.

Lagodon Holbrook, 1855, 265.

DICHELODUS Giebel, 1857, 409.

Pagrichthys Bleeker, 1860, 293.

LOBODUS Costa, 1866, 340.

Symphorus Günther, 1872, 365.

Grammateus Poey, 1874, 376.

SPAROIDES Probst, 1874, 376.

Puntazzo Bleeker, 1876, 383.

SPAROSOMA Sauvage, 1883, 425.

PSEUDOSPHERODON Noetling, 1885, 434.

Pagrosomus Gill, 1893, 461.

Sparosomus Gill, 1893, 461.

Otrynter Jordan & Evermann, 1896, 472.

Salema J. & E., 1896, 472.

Calopomus (Agassiz) Woodward, (1845) 1901, 224.

Taius Jordan & Thompson, 1912, 544.

Evynnis³⁸¹ J. & T., 1912, 544.

Parargyrops³⁸² Tanaka, 1916, 560.

Stenesthes Jordan, 1917, 562.

RHYTHMIAS Jordan & Gilbert, 1920, 571.

PLECTRITES Jordan, 1920, 571.

ATKINSONELLA Jordan, 1920, 572.

³⁷⁸ The original type species of this genus is said to be a *Sparus*.

³⁷⁹ Also written *Chrysophris*.

³⁸⁰ This little genus is placed by Regan with the *Pomadasidæ*.

³⁸¹ This genus, otherwise close to *Pagrosomus*, differs from all other *Sparoid* fishes in having a few stout conical teeth on the vomer.

³⁸² Misprinted *Paragyrops* in "Genera of Fishes."

Family 450. **DENTICIDÆ** (*Nemipteridæ*)

Regan refers *Dentex* to the *Sparidæ*, leaving most of the other genera to form the *Nemipteridæ*.

Synagris Klein, 1775, 38.

Dentex Cuvier, 1815, 94.

Nemipterus Swainson, 1839, 199.

Synagris Günther, 1859, 291.

Sparopsis³⁸³ Kner, 1868, 352.

Gymnocranius Klunzinger, 1870, 358.

³⁸³ *Sparopsis* and *Anemura* are apparently synonymous with *Synagris* as restricted.

Polysteganus Klunzinger, 1870, 358.
Gnathodentex Bleeker, 1873, 367.
Paradentex Bleeker, 1876, 382.
Synagris (Klein) Bleeker, 1876, 383.

CTENODENTEX Storms, 1896, 475, 484.
Anemura³⁸⁴ Fowler, 1904, 507.
Odontoglyphis Fowler, 1904, 507.
Euthyopteroma Fowler, 1904, 507.

Family 451. GIRELLIDÆ

Vegetable-feeders with incisor teeth, mostly movable, and no molars.

Coracinus Gronow, 1763, 19.
Boops Cuvier, 1815, 94.
Cantharus Cuvier, 1817, 103.
Dipterodon Cuvier, 1829, 128.
Oblada Cuvier, 1829, 128.
Crenidens Cuvier & Valenciennes, 1830, 135.
Scatharus Cuv. & Val., 1830, 135.
Box Cuv. & Val., 1830, 135.
Sarpa Bonaparte, 1831, 175.
Girella Gray, 1833, 179.
Exocallus De la Pylaie, 1835, 183.
Melanichthys Temminck & Schlegel, 1844, 223.
Spondylisoma Cantor, 1849, 241.

Camarina Ayres, 1854, 255.
Doydixodon Valenciennes, 1855, 266.
Gymnocrotaphus Günther, 1859, 291.
Proteracanthus Günther, 1859, 291.
Tephraeops Günther, 1859, 291.
Pachymetopon Günther, 1859, 291.
Incisidens Gill, 1862, 316.
Melambaphes Günther, 1863, 326.
Glyphodes Guichenot, 1864, 332.
Tripterodon Playfair, 1866, 343.
Girellichthys Klunzinger, 1872, 366.
Neotephraeops Castelnau, 1872, 362.
Aplodon Duméril, 1883, 426.
Dichistius Gill, 1888, 441.
Girellops Regan, 1913, 550.

Family 452. KYPHOSIDÆ

(Pilot Fishes)

Tahhmel Forskål, 1775, 34.
Kyphosus Lacépède, 1802, 61.
Pimelepterus Lacépède, 1803, 63.
Xyster Lacépède, 1803, 68.
Dorsuarius Lacépède, 1803, 68.

Xysterus Rafinesque, 1815, 90.
Seleima Bowdich, 1825, 119.
Opisthistius Gill, 1862, 316.
Sectator Jordan & Fesler, 1893, 462.

Family 453. HISTIOPTERIDÆ

(Boar Fishes)

Pentaceros Cuvier, 1829, 125.
Histiopterus³⁸⁴ Temminck & Schlegel, 1843.
Richardsonia Castelnau, 1872, 362.
Pseudopentaceros Bleeker, 1876, 382.
Paristiopterus Bleeker, 1876, 382.
Pentaceropsis Steindachner & Döderlein, 1883, 426.

Prosoplismus Waite, 1903, 506.
Zanclistius Jordan, 1907, 524.
Evistias Jordan, 1907, 524.
Quadrarius Jordan, 1907, 524.
Quinquarius Jordan, 1907, 524.
Gilchristia Jordan, 1907, 524.
Maccullochia Waite, 1910, 537.

³⁸⁴ "Fauna Japonica," 86; orthotype *Histiopterus typus* Temminck & Schlegel. (Omitted in "Genera of Fishes.")

Family 454. ENOPLOSIDÆ

Enoplosus Lacépède, 1803, 64.

Family 455. INERMIDÆ

This small family has no visible relation to the *Emmelichthyidæ*, to which group the genus *Inermia* has been referred. The narrow maxillary is

devoid of scales and slips under the preorbital. The dorsal fins are separate, the first of many spines.

Dipterygnotus Bleeker, 1849, 240.

Inermia Poey, 1861, 299.

Family 456. **MÆNIDÆ** (*Merolepidæ*)

Mænas Klein, 1775, 39.

Smaris Cuvier, 1815, 93.

Spicara Rafinesque, 1810, 80.

Mæna Cuvier, 1829, 128.

Centracanthus³⁸⁵ Rafinesque, 1810, 80.

Mænas (Klein) Bleeker, 1876, 382.

Merolepis Rafinesque, 1810, 81.

³⁸⁵ Later spelled *Centracantha*, originally misspelled *Centracantus*.

Family 457. **EMMELICHTHYIDÆ** (*Erythrichthyidæ*)

This family differs widely from the *Mænidæ* in the large, scaly uncovered maxillary. The dorsal fin is divided into two.

Emmelichthys Richardson, 1844, 223.

Boxaodon Guichenot, 1848, 238.

Erythrichthys Temminck & Schlegel, 1845, 227.

Plagiogeneion Forbes, 1890, 450.

Erythrocles Jordan, 1919, 567.

Family 458. **GERRIDÆ** (*Xystæmidæ*)

(Mojarras; Silver Perch)

Mormyrus Catesby, 1771, 29.

Clara Gill, 1862, 314.

Gerres (Cuvier) Quoy & Gaimard, 1824, 117.

Moharra Poey, 1875, 379.

Diapterus Ranzani, 1840, 208.

Gerreomorpha Alleyne & Macleay, 1877, 387.

Podager Gistel, 1848, 236.

Parequula Steindachner, 1879, 401.

Catochænum Cantor, 1849, 241.

Chthalmopteryx Ogilby, 1887, 438.

Pentaprion Bleeker, 1850, 245.

Xystæma Jordan & Evermann, 1895, 468.

Eucinostomus Baird, 1857, 274.

Ulæma J. & E., 1895, 468.

Synistius Gill, 1862, 315.

Pertica Fowler, 1904, 508.

Family 459. **OPLEGNATHIDÆ**

Oplegnathus Richardson, 1840, 208.

Scarostoma Kner, 1867, 346.

Scaradon Temminck & Schlegel, 1844, 223.

Family 460. **MULLIDÆ**

(Surmullets)

Mullus Linnæus, 1758, 14.

Acanthomullus Valenciennes, 1861, 309.

Upeneus³⁸⁶ Cuvier, 1829, 127.

Pseudupeneus Bleeker, 1862, 310.

Mulloides Bleeker, 1849, 240.

Parupeneus Bleeker, 1863, 322.

Upeneoides Bleeker, 1849, 240.

Mullhypeneus Poey, 1867, 347.

Megalepis Bianconi, 1855, 262.

Brachymullus Bleeker, 1876, 383.

Upeneichthys Bleeker, 1855, 263.

Pseudomulloides Ribeiro, 1915, 557, 560.

³⁸⁶ Name corrected to *Hypeneus* by authors.

Family 461. SCIÆNIDÆ

(Croakers; Roncadores)

Vertebræ of the usual number, 10 + 14.

- Sciæna* Linnæus, 1758, 13.
Alburnus Catesby, 1771, 30.
Cromis Browne, 1789, 47.
Johnius Bloch, 1793, 51.
Lonchiurus^{386a} Bloch, 1793, 51.
Pogonias Lacépède, 1802, 61.
Leiostomus^{386b} Lacépède, 1803, 64.
Pogonathus Lacépède, 1803, 65.
Chromis (Plumier) Lacépède, 1803, 73.
Coracinus Pallas, 1811, 84.
Equietus Rafinesque, 1815, 89.
Stellifer (Cuvier) Oken, 1817, 104.
Umbrina Cuvier, 1817, 104.
Aploidnotus^{386c} Rafinesque, 1819, 110.
Amblodon Rafinesque, 1819, 110.
Bola Hamilton, 1822, 114.
Stelliferus Stark, 1828, 123.
Pachyurus Agassiz, 1829, 132.
Corvina Cuvier, 1829, 128.
Larimus Cuvier & Valenciennes, 1830, 134.
Micropogon Cuv. & Val., 1830, 135.
Lepipterus Cuv. & Val., 1830, 135.
Micropogonias Bonaparte, 1831, 175.
Argyrosomus De la Pylaie, 1835, 184.
Cheilotrema Tschudi, 1846, 230.
Apeches Gistel, 1848, 236.
Melantha Gistel, 1848, 238.
Attilus Gistel, 1848, 238.
Homoprion Holbrook, 1855, 265.
Sciænoides Blyth, 1860, 294.
Collichthys Günther, 1860, 296.
Rhinoscion Gill, 1861, 304.
Plagioscion Gill, 1861, 304.
Anomiolepis Gill, 1861, 304.
Menticirrhus Gill, 1861, 304.
Pachypops Gill, 1861, 304.
Genyonemus Gill, 1861, 304.
Haploidonotus (Rafinesque) Gill, 1861, 304.
Bairdiella Gill, 1861, 302.
Pseudolithus Bleeker, 1861, 321.
Odontoscion Gill, 1862, 313.
Cirrhimens Gill, 1862, 313.
Amblyscion Gill, 1863, 324.
Ophioscion Gill, 1863, 324.
Diplolepis Steindachner, 1863, 328.
Hemisciæna Bleeker, 1863, 321.
Pseudosciæna Bleeker, 1863, 321.
Sciænops Gill, 1863, 323.
Polycirrhus Bocourt, 1869, 354.
Paralenchurus Bocourt, 1869, 354.
Larimodon (Kaup) Bleeker, 1876, 383.
Eutychelithus Jordan, 1876, 386.
Pareques Gill, 1876, 385.
Roncador Jordan & Gilbert, 1880, 403.
Corvula Jordan & Eigenmann, 1889, 447.
Callaus Jordan & Eigenmann, 1889, 447.
Polyclemus Berg, 1895, 466.
Asperina Ostroumoff, 1896, 475.
Elattarchus Jordan & Evermann, 1896, 472.
Zonoscion J. & E., 1896, 472.
Zaclemus Gilbert, 1896, 473.
Nector Jordan & Evermann, 1898, 480.
Zestis J. & E., 1898, 481.
Zestidium J. & E., 1898, 481.
Stellicarens J. & E., 1898, 481.
Sigmurus Gilbert, 1898, 481.
Cilus Delfin, 1900, 489.
Larimichthys Jordan & Starks, 1905, 514.
Pseudomycterus Ogilby, 1908, 529.
Twingonia Pascoe, 1908, 529.
Othonias Jordan & Thompson, 1911, 539.
Nibea J. & T., 1911, 539.

^{386a} Often written *Lonchurus*.^{386b} Often written *Liostomus*.^{386c} Corrected to *Haploidonotus* by Gill.

Family 462. **OTOLITHIDÆ**

(Weak Fishes; Queen Fishes)

Vertebræ 14 + 10, not 10 + 14 as in *Sciænida* and the types allied to *Sciæna*, *Serranus*, *Sparus*, and *Lutianus*.

Otolithes³⁸⁷ (Cuvier) Oken, 1817, 104.**Ancylodon** (Cuvier) Oken, 1817, 104.**Macrodon** Schinz, 1822, 115.**Nebris** Cuvier & Valenciennes, 1830, 134.**Nomalus** Gistel, 1848, 234.**Seriphus** Ayres, 1854, 255.**Cestreus** Gronow, 1854, 258.**Cynoscion** Gill, 1861, 304.**Atractoscion** Gill, 1862, 313.**Archoscion** Gill, 1862, 313.**Apseudobranchus** Gill, 1862, 313.**Isopisthus** Gill, 1862, 313.**Paraplesichthys** (Kaup) Bleeker, 1876, 383.**Sagenichthys** Berg, 1895, 466.**Buccone** Jordan & Evermann, 1896, 472.**ARCHÆOTOLITHUS** Stolley, 1910, 537.**Symphysoglyphus** Ribeiro, 1913, 551.**LOMPOQUIA** Jordan & Gilbert, 1919, 569.**ARISTOSCION** Jordan, 1920, 571.**IOSCION**³⁸⁸ Jordan, 1921.³⁸⁷ Later written *Otolithus* by Cuvier.³⁸⁸ Jordan, "Fishes of the California Tertiary," 283; orthotype *Ioscion morganii* Jordan.Family 463. **SILLAGINIDÆ****Sillago** Cuvier, 1817, 101.**Sillaginodes** Gill, 1861, 306.**Sillaginopsis** Gill, 1861, 306.**Neosillago** Castelnau, 1875, 378.**Iosillago** Macleay, 1878, 396.Family 464. **NANDIDÆ**

This group may require further subdivision.

Nandus Cuvier & Valenciennes, 1831, 137.**Bedula** Gray, 1833, 179.**Pomanotis** Guichenot, 1847, 232.**Acharnes** Müller & Troschel, 1848, 239.**Pristolepis** Jerdon, 1848, 239, 246.**Catopra** Bleeker, 1851, 248.**Badis** Bleeker, 1853, 253.**Paranandus** Day, 1865, 336.Family 465. **POLYCENTRIDÆ****Monocirrhus** Heckel, 1840, 207.**Polycentrus** Müller & Troschel, 1848, 239.**Polycentropsis** Boulenger, 1901, 492.Family 466. **MALACANTHIDÆ**

This family and the next four bear strong resemblance to the trachiniform fishes, differing mainly in the thoracic insertion of the ventrals.

Malacanthus Cuvier, 1829, 130**Oceanops** Jordan & Seale, 1906, 519.Family 467. **BRANCHIOSTEGIDÆ** (*Latilidæ*)**Coryphænoides** Lacépède, 1802, 62.**Branchiostegus** Rafinesque, 1815, 90.**Latilus** Cuvier & Valenciennes, 1830, 135.**Caulolatilus** Gill, 1862, 316.**Dekaya** Cooper, 1863, 323.**Prolatilus** Gill, 1865, 337.**Lopholatilus** Goode & Beane, 1879, 400.**Hoplolatilus** Günther, 1887, 438.

Family 468. LABRACOGLOSSIDÆ

Platystethus Günther, 1860, 296.

Evistius Gill, 1893, 461.

Labracoglossa³⁸⁹ Peters, 1866, 342.

Bathystethus Gill, 1893, 461.

Cypselichthys Steindachner & Döderlein,
1883, 426.

³⁸⁹ This genus is without teeth in the gullet and has no apparent affinity with the *Stromateidæ*.

Family 469. CEPOLIDÆ

Cepola Linnæus, 1764, 22.

Acanthocephala Bleeker, 1874, 372.

Tænia Röse, 1793, 52.

Family 470. HENICICHTHYIDÆ

Henicichthys³⁹⁰ Tanaka, 1915, 558.

³⁹⁰ Description in Japanese. The following is the translation as furnished me by Mr. Tanaka: *Henicichthys foraminosus* (*Henichthyidæ* new family) proposed in Japanese in *Zool. Mag.*, 27: No. 325, Nov. 15, 1915, p. 568. Head 2.4-5 in length (exclusive of caudal), depth 5.3-8. Eye lateral; mouth large, somewhat oblique; maxillary extending behind posterior border of eye; teeth in jaws acute, arranged in a row; vomer and palatines toothed. Two dorsals somewhat close together. Dorsal, VI, 11; anal, 11; pectoral 13; ventral I, 5. Ventral fins close together, beneath pectoral; caudal nearly truncated. Scaleless; body and head with many pores which are arranged longitudinally and transversely. Color pale, plain. Length (exclusive of caudal) 5-5 cm. Nagasaki. The species seems to be a trachinoid fish and also to be included in a new family.

Series TRICHODONTIFORMES

Family 471. TRICHODONTIDÆ

The trachinoid fishes (*Jugulares*) follow in a natural sequence, a fact not to be shown in a linear series.

Trichodon (Steller) Cuvier, 1829, 127.

Arctoscopus Jordan & Evermann, 1896,
474.

Chætichthys Gistel, 1848, 238.

Suborder CIRRHITOIDEI

Family 472. CIRRHITIDÆ

The fishes of this group bear some resemblance to the *Cataphracti*, which may be an indication of common origin.

Cirrhitus^{390a} Lacépède, 1803, 65.

Zeodrius Castelnau, 1878, 393.

Cirrhichthys^{390b} Bleeker, 1856, 274.Paracirrhites Steindachner & Döderlein,
1883, 426.

Oxycirrhites Bleeker, 1857, 274.

Psilocranium Macleay, 1884, 429.

Amblycirrhitus Gill, 1862, 313.

Dactylophora De Vis, 1884, 427.

Cirrhitopsis Gill, 1862, 313.

Cirrhitoidea Jenkins, 1903, 504.

Lacepedia Castelnau, 1873, 367.

Isobuna Jordan, 1907, 525.

Neocirrhites Castelnau, 1873, 368.

Cyprinocirrhites Tanaka, 1917, 563.

Paracirrhites Bleeker, 1875, 378.

^{390a} Written *Cirrhites* by authors.

^{390b} This name appears first in *Ned. Tydschr. Dierk.*, 10: 474, 1856.

Family 473. **CHIRONEMIDÆ**

Chironemus Cuvier, 1828, 126.
Threpterus Richardson, 1850, 247.

Sciænoides (Solander) Richardson, 1850,
 247.

Family 474. **CHEILODACTYLIDÆ**

Cheilodactylus Lacépède, 1803, 65.
*Nemadactylus*³⁹¹ Richardson, 1839, 197.
Pteronemus Van der Hoeven, 1849, 243,
 383.
Trichopterus Gronow, 1854, 259.

Chirodactylus Gill, 1862, 313.
Acantholatris Gill, 1862, 313.
Dactylopagrus Gill, 1862, 313.
Dactylosparus Gill, 1862, 314.

³⁹¹ Spelled also *Nematodactylus*.

Family 475. **APLODACTYLIDÆ**

*Aplodactylus*³⁹² Cuvier & Valenciennes,
 1831, 137.
Crinodus Gill, 1862, 313.

Dactylosargus Gill, 1862, 313.
Gonistius Gill, 1862, 314.
Parhaplodactylus Thominot, 1883, 426.

³⁹² Often written *Haplodactylus*.

Family 476. **LATRIDÆ**

Latris Richardson, 1839, 197.
Latridopsis Gill, 1862, 314.

Mendosoma Guichenot, 1848, 238.

*Series GADOPSIFORMES*Family 477. **GADOPSIDÆ**

Gadopsis Richardson, 1844, 223.

Series CAPRIFORMES

A small group of uncertain relations, bearing a strong resemblance to the *Zeidæ* in form and having, like the *Zeidæ* and the *Chatodontidæ*, the post-temporal solidly joined to the skull. But the ventral rays are always I, 5, as in the *Chatodonts*, and the gill membranes free from the isthmus, as in *Zeus*. A comparative study of the skeletons of these transitional groups, *Zeus*, *Capros*, *Toxotes*, *Scorpiis*, *Ephippus*, *Platax*, *Drepane*, and *Amphistium*, is much to be desired.

Family 478. **CAPROIDÆ**

Capros Lacépède, 1803, 65.
Caprophonus Müller & Troschel, 1849,
 243.

METOPONICHTHYS Kramberger, 1882, 420.
PROANTIGONIA Kramberger, 1882, 420.

Family 479. **ANTIGONIIDÆ**

Antigonia Lowe, 1843, 215.
Hypsinothus Temminck & Schlegel, 1844,
 223.

Acanthagonia Ogilby, 1918, 564.

Family 480. **AMPHISTIIDÆ**

A group of uncertain relations, apparently allied to the *Ephippidæ*, regarded by Boulenger as an ally of *Zeus* and perhaps ancestral to the

Heterosomata. As Regan finds the ventrals I, 5, we have separated it from the zeoid fishes.

AMPHISTIUM Agassiz, 1835, 181, 218.

MACROSTOMA³⁹³ Agassiz, 1838, 191.

³⁹³ A genus of doubtful affinity, resembling a chaetodont, the name preoccupied.

Series EPHIPPIFORMES

This group has many characters in common with the perciform fishes, especially in having the post-temporal not solidly united to the skull. It agrees, however, with the *Squamipennes* in many regards, notably the restriction of the gill openings to the sides; the compressed body and scaly fins mark a transition from the *Scorpidæ* and related forms to the *Chaetodontidæ*.

Family 481. SCORPIDÆ

(Half-moon Fishes)

Scorpis Cuvier & Valenciennes, 1831, 573.

Agenor Castelnau, 1878, 393.

Atypus Günther, 1860, 296.

Diodyxodon Thominot, 1881, 417.

Atypichthys Günther, 1862, 575.

Tilodon Thominot, 1881, 417.

Helotosoma Kaup, 1863, 327.

Neptotichthys Hutton, 1890, 451.

Parapsettus Steindachner, 1875, 381.

Medialuna Jordan & Fesler, 1893, 462.

Parascorpis Bleeker, 1875, 377.

Atyposoma Boulenger, 1899, 485.

Cæsiosoma Kaup, 1876, 383.

Neatypus Waite, 1905, 516.

Family 482. MONODACTYLIDÆ

A group of uncertain affinity, seeming close to the *Xyphosidæ* on the one hand and to the chaetodontoid forms on the other. I place them provisionally with the *Ephippidæ*, but it may be that the genera will require to be rearranged. From the allies of *Chaetodon*, the *Scorpidæ*, *Monodactylidæ*, *Platacidæ*, *Drepanidæ*, and *Ephippidæ* differ in not having the post-temporal coössified with the skull.

Monodactylus Lacépède, 1802, 61.

Psettus (Commerson) Cuvier, 1829, 128.

Centropodus Lacépède, 1802, 62.

Schuettea Steindachner, 1866, 343.

Psettus (Commerson) Lacépède, 1802, 70.

Psettias Jordan, 1906, 519.

Acanthopodus Lacépède, 1803, 64.

Family 483. PLATACIDÆ

Platax Cuvier, 1817, 105.

Family 484. EPHIPPIDÆ

Chaetodipterus Lacépède, 1803, 64.

Parephippus Gill, 1861, 305.

Ephippus Cuvier, 1817, 105.

EPHIPPIITES Von Ammon, 1901, 492.

Ilarches Cantor, 1849, 241.

Bramichthys Waite, 1905, 516.

Family 485. DREPANIDÆ

Drepane Cuvier & Valenciennes, 1831, 136, 175.

Enixe Gistel, 1848, 235.

*Drepanichthys*³⁹⁴ Bonaparte, 1831.

Harpochirus Cantor, 1849, 241.

Cryptosmilia Cope, 1867, 344.

³⁹⁴ Bonaparte, "Saggio," etc. A substitute for *Drepane*, as are also *Enixe* and *Harpochirus*, *Drepane* being regarded as preoccupied by the earlier names, *Drepana*, *Drepania*, *Drepanus*, *Drepanis*, and *Drepanius*. *Drepanichthys* is quoted by Agassiz, "Nomenclator," 23, 1843. (Overlooked in "Genera of Fishes.")

Suborder SQUAMIPENNES
(*Epelasmia*)

Post-temporal firmly attached to the skull, the interspace between the three forks filled in by bone; gill openings restricted to the sides; soft fins largely scaly.

Series TOXOTIFORMES

Family 486. **TOXOTIDÆ**

This family, of uncertain relationship, agrees with the *Chætodontidæ*, according to Günther in the union of the post-temporal with the skull.

Toxotes Cuvier, 1817, 105.

Amblytoxotes Bleeker, 1876, 383.

Trompe Gistel, 1848, 237.

Series CHÆTODONTIFORMES

Family 487. **SCATOPHAGIDÆ**

In this family the post-temporal is solidly united to the skull as in *Chætodontidæ*.

Scatophagus Cuvier & Valenciennes, 1831,
136.

Prenes Gistel, 1848, 237.

Cacodoxus Cantor, 1849, 241.

Family 488. **CHÆTODONTIDÆ**

(Butterfly Fishes; Coral Fishes)

Chætodon Linnaeus, 1758, 13.

Acarauna Catesby, 1771, 32.

Tetragonopterus Klein, 1775, 40.

Holacanthus Lacépède, 1803, 64.

Pomacanthus Lacépède, 1803, 64.

*Chelmon*⁸⁹⁵ Cuvier, 1817, 105.

Heniochus Cuvier, 1817, 105.

Taurichthys Cuvier, 1829, 128.

Rabdophorus Swainson, 1839, 198.

*Microcanthus*⁸⁹⁶ Swainson, 1839, 198.

Genicanthus Swainson, 1839, 198.

Megaprotodon Guichenot, 1848, 238.

Diphreutes Cantor, 1849, 241.

Centropyge Kaup, 1860, 298.

Linophora Kaup, 1860, 297.

Eteira Kaup, 1860, 297.

Citharædus Kaup, 1860, 297.

Coradion Kaup, 1860, 297.

Therapaina Kaup, 1860, 298.

Sarothrodus Gill, 1861, 304, 316.

Prognathodes Gill, 1862, 316.

Pomacanthodes Gill, 1862, 316.

Tholichthys Günther, 1868, 351.

Tetragonopterus (Klein) Bleeker, 1868,
348, 383.

Neochætodon Castelnau, 1873, 368.

Parachætodon Bleeker, 1874, 372.

Oxychætodon Bleeker, 1876, 383.

Chætodontops Bleeker, 1876, 383.

Lepidochætodon Bleeker, 1876, 383.

Acanthochætodon Bleeker, 1876, 383.

Chætodontoplus Bleeker, 1876, 383.

Gonochætodon Bleeker, 1876, 383.

Hemitaurichthys Bleeker, 1876, 383.

Chelmonops Bleeker, 1876, 383.

Hemichætodon Bleeker, 1876, 384.

Anisochætodon Klunzinger, 1884, 429.

Angelichthys Jordan & Evermann, 1896,
473.

Forcipiger Jordan & McGregor, 1898,
481, 482.

Osteochromis Franz, 1910, 535.

⁸⁹⁵ Later written *Chelmo*.

⁸⁹⁶ A misprint for *Micracanthus*.

Vinculum McCulloch, 1914, 554.

Loa³⁹⁷ Jordan, 1921.

Tifa³⁹⁸ Jordan, 1923.

Xiphypops³⁹⁹ Jordan, 1923.

³⁹⁷ Jordan, *Proc. U. S. Nat. Mus.*, 653, 1921; type *Loa excelsa* Jordan.

³⁹⁸ "Fishes of Hawaii," *Mem. Carnegie Museum*, 1923, 60; orthotype *Chatodon corallicola* Snyder.

³⁹⁹ *Loc. cit.*, 64; orthotype *Holacanthus fisheri* Snyder.

Series ZANCLIFORMES

Family 489. ZANCLIDÆ

Zanclus (Commerson) Lacépède, 1803, 70.

Zanclus (Commerson) Cuvier & Valenciennes, 1831, 136.

Gonopterus Gronow, 1854, 258.

Gnathocentrum Guichenot, 1866, 341.

Series ACANTHURIFORMES

Family 490. ACANTHURIDÆ (*Teuthididæ*; *Hepatidæ*)

Hepatus⁴⁰⁰ Gronow, 1763, 20.

Teuthis⁴⁰¹ Linnæus, 1766, 23.

Rhombotides Klein, 1775, 38.

Acanthurus Forskål, 1775, 33.

Harpurus Forster, 1778, 43.

Teuthis Browne, 1789, 48.

Monoceros Bloch & Schneider, 1801, 58.

Naso Lacépède, 1802, 61.

Naseus (Commerson) Lacépède, 1802, 69.

Aspisurus Lacépède, 1803, 64.

Prionurus Lacépède, 1804, 169.

Nasonus Rafinesque, 1815, 88.

CHIRURGUS Blainville, 1818, 108.

Priodon Quoy & Gaimard, 1824, 118.

Axinurus Cuvier, 1829, 129.

Priodontichthys Bonaparte, 1831, 175.

Scopas Bonaparte, 1831, 175.

Ctenodon Bonaparte, 1833, 175.

Keris⁴⁰² Cuvier & Valenciennes, 1835, 181.

Zebrasoma Swainson, 1839, 201.

Callicanthus Swainson, 1839, 201.

Ctenodon Swainson, 1839, 201.

Acronurus Gronow, 1854, 259.

Acronurus (Gronow) Günther, 1861, 307.

Rhombotides (Klein) Bleeker, 1863, 322.

Scopas⁴⁰³ (Bonaparte) Kner, 1865.

CALAMOSTOMA Steindachner, 1863, 328.

Ctenodon (Bonaparte) Klunzinger, 1884, 429.

Ctenochætus Gill, 1884, 428.

Colocopus Gill, 1884, 428.

APOSTASIS Kramberger, 1891, 455.

Xesurus Jordan & Evermann, 1896, 473.

Acanthocaulus Waite, 1900, 491.

Hepatus (Gronow) Jordan & Seale, 1906.

Læpichthys Ogilby, 1916, 560.

⁴⁰⁰ If Gronow's names (1763) are accepted *Hepatus* would replace *Acanthurus*. The original *Teuthis* of Linnæus, 1768, was exactly equivalent to the non-binomial *Hepatus* of Gronow. The generic distinction between the two species, *hepatus* and *javus*, was recognized by Forskål, 1775, who named the type of the former *Acanthurus*, the other *Siganus*. Cuvier & Valenciennes used the names *Acanthurus* and *Amphacanthus*. Neither of these writers adopted *Teuthis* as a generic name. The first restriction of *Teuthis* was that of Cantor, who used it for the *Siganus* group, although by good rights he should have taken it instead of *Acanthurus*. For the present we follow Cantor and Günther.

⁴⁰¹ This name, commonly used as a synonym of *Siganus*, has been often misspelled as *Teuthys*, *Theutis*, etc.

⁴⁰² Corrected to *Ceris*.

⁴⁰³ "Novara Fische," 212; type *Acanthurus scopas* Cuvier & Valenciennes. (Omitted in "Genera of Fishes.")

Family 491. **PYGÆIDÆ****Pygæus** Agassiz, 1838, 191.**Parapygæus** Pellegrin, 1907, 526.

NOTE.—The *Plectognathi* follow naturally as next in this descent, a fact which can not be shown in a linear series.

*Suborder AMPHACANTHI*Family 492. **TEUTHIDÆ** (*Siganidæ*)**Teuthis**⁴⁰⁴ Linnæus, 1766, 23 (in part).**Buro** Lacépède, 1803, 67.**Siganus** Forskål, 1775, 32.**Buronus** Rafinesque, 1815, 90.**Centrogaster** Houttuyn, 1782, 44.**Archæoteuthis**⁴⁰⁵ Wettstein, 1886, 436.**Amphacanthus** Bloch and Schneider, 1801, 59.**Lo** Seale, 1906, 519.

⁴⁰⁴ The proper application of the name *Teuthis* is not yet definitely settled. Its first restriction, that of Cantor, 1849, makes it identical with *Siganus*, but the first use of the name (pre-Linnæus) was for a species of *Acanthurus*.

⁴⁰⁵ Misspelled *Archateuthis* in "Genera of Fishes."

Order **CATAPHRACTI**(*Loricati*; *Pareioplitæ*; *Sclerogeni*)*Series SCORPAENIFORMES*Family 493. **SCORPÆNIDÆ**

(Scorpion Fishes; Rock Cod)

Scorpæna Linnæus, 1758, 13.**Pteroleptus** Swainson, 1839, 201.**Pseudopterus** Klein, 1775, 40.**Pteropterus** Swainson, 1839, 201.**Scorpius** (Plumier) Lacépède, 1802, 72.**Brachyrus**⁴⁰⁶ Swainson, 1839, 201.**Tænianotus** Lacépède, 1803, 63.**Platypterus** Swainson, 1839, 201.**Panotus** Rafinesque, 1815, 89.**Pterichthys** Swainson, 1839, 201.**Pterois** (Cuvier) Oken, 1817, 104.**Gymnapistes** Swainson, 1839, 201.**Ampheristus** König, 1825, 118.**Goniognathus** Agassiz, 1844, 218.**Apistes**⁴⁰⁶ Cuvier, 1829, 127.**Hypodytes** Gistel, 1848, 234.**Sebastes** Cuvier, 1829, 127.**Corythobatus** Cantor, 1849, 241.**Scorpænopsis** Heckel, 1837, 189.**Prosopodasys** Cantor, 1849, 241.**Pteropterus** Swainson, 1839, 198.**Scorpænichthys** Girard, 1854, 257.**Trichosomus** Swainson, 1839, 197.**Pteroidichthys** Bleeker, 1856, 267.**Trichophasia** Swainson, 1839, 197.**Scorpænichthys** Bleeker, 1856, 267.**Brachirus** Swainson, 1839, 201.**Ctenopoma** Heckel, 1856, 270.**Dendrochirus**⁴⁰⁷ Swainson, 1839, 198.**Scorpænodes** Bleeker, 1857, 275.**Macrochyrus** Swainson, 1839, 201.**Polemius** Kaup, 1858, 282.

⁴⁰⁶ Spelled also *Apistus*.

⁴⁰⁷ A synonym of *Brachirus*, used for the same group on page 71, *loc. cit.*, *Dentrochirus* occurring on page 180, and *Brachyrus* on page 264.

⁴⁰⁸ Spelled *Brachirus* by Swainson on page 71, *loc. cit.*, *Brachyrus* on page 264; replaced by *Dendrochirus* on page 180, while the name *Brachirus* is on page 303, taken for a genus of the soles, *Synaptura* Cantor, of which genus the proper type is *Synaptura commersoniana*.

- Cocotropus** Kaup, 1858, 282.
SCORPÆNOPTERUS Steindachner, 1859, 293.
Tetraroge Günther, 1860, 296.
Glyptauchen Günther, 1860, 296.
Pentaroge Günther, 1860, 296.
Centropogon Günther, 1860, 296.
Pontinus Poey, 1860, 299.
Sebastodes Gill, 1861, 305.
Sebastichthys Gill, 1862, 317.
Sebastopsis Gill, 1862, 316.
Setarches Johnson, 1863, 319.
Sebastoplus Gill, 1863, 324.
Sebastosomus Gill, 1864, 330.
Sebastomus Gill, 1864, 330.
Neosebastes Guichenot, 1867, 345.
Sebastopsis Sauvage, 1873, 371.
Pseudopterus (Klein) Bleeker, 1876, 384.
Paracentropogon Bleeker, 1876, 384.
Parascorpæna Bleeker, 1876, 384.
Parapterois Bleeker, 1876, 384.
Pteroidichthys Bleeker, 1876, 384.
Amblyapistus Bleeker, 1876, 384.
Cottapistus Bleeker, 1876, 384.
Pseudosebastes Sauvage, 1878, 397.
Eusebastes Sauvage, 1878, 397.
Sebastapistes Gill, 1878, 397.
Lioscorpius Günther, 1880, 403.
Sebastolobus Gill, 1881, 415.
Auctospina Eigenmann & Beeson, 1893, 460.
Primospina E. & B., 1893, 460.
Acutomentum E. & B., 1893, 460.
Pteropodus E. & B., 1893, 460.
Helicolenus Goode & Bean, 1895, 468.
Hispanicus Jordan & Evermann, 1896, 474.
Eosebastes J. & E., 1896, 474.
Rosicola J. & E., 1896, 474.
Emmelas J. & E., 1898, 481.
SCORPÆNOIDES Priem, 1899, 487.
Ectreposebastes Garman, 1899, 486.
Iracundus Jordan & Evermann, 1903, 504.
Merinthe Snyder, 1904, 511.
Erisphex Jordan & Starks, 1904, 509.
Decterias J. & S., 1904, 509.
Ebosia J. & S., 1904, 509.
Lythrichthys J. & S., 1904, 509.
Sebastiscus J. & S., 1904, 509.
Thysanichthys J. & S., 1904, 509.
Daia Ogilby, 1904, 510.
Notestes Ogilby, 1904, 510.
Liocranium Ogilby, 1904, 510.
Plectrogenium Gilbert, 1905, 513.
Sebastosemus Gill, 1905, 513.
Hypomacrus Evermann & Seale, 1907, 522.
Pogonoscorpius Regan, 1908, 530.
Vespicola⁴⁰⁰ Jordan & Richardson, 1910.
Apistops Ogilby, 1911, 540.
Kanekonia Tanaka, 1915, 558.
Sebastella Tanaka, 1918, 565.
SEBASTAVUS Jordan & Gilbert, 1919, 569.
RHOMARCHUS Jordan & Gilbert, 1919, 569.
RIXATOR Jordan & Gilbert, 1920, 571.
SEBASTOËSSUS Jordan, 1920, 571.
SEBASTINUS Jordan, 1920, 571.
Metzelaaria⁴¹⁰ Jordan, 1923.

⁴⁰⁰ Check List, "Fishes Philippines," 52; orthotype *Prosopodasys gogorzæ* Jordan & Seale. (Omitted in "Genera of Fishes.")

⁴¹⁰ New genus; type *Scorpæna tridecimspinosa* Metzelaar from Surinam; allied to *Auctospina* and *Pterodus*, with thirteen dorsal spines, but with nasal and maxillary tentacles.

Family 494. CONGIPODIDÆ (*Agriopidæ*)

- Congiopus**⁴¹¹ Perry, 1811, 170.
Agriopus Cuvier, 1829, 127.
Cephalinus Gronow, 1854, 259.
Zanclorhynchus Günther, 1880, 403.
Snyderina Jordan & Starks, 1901, 495.
Ocosia Jordan & Starks, 1904, 509.

⁴¹¹ Written *Congiopodus* by some writers.

Family 495. APLOACTIDÆ

- Aploactis** Temminck & Schlegel, 1843, 216.
Sthenopus Richardson, 1848, 240.
Trichopleura Kaup, 1858, 282.
Paraploactis Bleeker, 1865, 335, 384.
Aploactisoma Castelnau, 1872, 363.

Family 496. **SYNANCEJIDÆ**

- Synanceja**⁴¹² Bloch & Schneider, 1803, 58. **Leptosynanceia** Bleeker, 1874, 374.
Minous Cuvier & Valenciennes, 1829, 133. **Synanchia** (Swainson) Bleeker, 1874, 374.
Pelor Cuvier, 1829, 127. **Pseudosynanceia** Day, 1875, 379.
Spurco (Commerson) Cuvier & Valenciennes, 1829, 174. **Emmydrichthys** Jordan & Rutter, 1896, 472.
Synanchia⁴¹³ Swainson, 1839, 201. **Choridactylodes** Gilchrist, 1902, 498.
Erosa Swainson, 1839, 197. **Inimicus** Jordan & Starks, 1904, 509.
Bufichthys Swainson, 1839, 201. **Erosa** (Swainson) Jordan & Starks, 1904, 509.
Trachicephalus Swainson, 1839, 201. **Simopias** Gill, 1905, 513.
Synancidium Müller, 1843, 216. **Rhinopias** Gill, 1905, 513.
Choridactylus⁴¹⁴ Richardson, 1848, 240. **Peloropsis** Gilbert, 1905, 513.
Glyptauchen⁴¹⁵ Günther, 1860. **Deleastes** Seale, 1906, 520.
Polycaulus Günther, 1860, 296. **Lysodermus** Smith & Pope, 1906, 520.
Uranoblepus Gill, 1861, 302.
Synanceichthys⁴¹⁶ Bleeker, 1863.

⁴¹² Usually written *Synanceia*; spelled by Swainson *Synanchia*.

⁴¹³ A variant of *Synanceja*.

⁴¹⁴ Name later written *Chorismodactylus*.

⁴¹⁵ "Cat. Fishes," 2: 121; orthotype *Apistes panduratus* Richardson. (Omitted in "Genera of Fishes.")

⁴¹⁶ "Ternate," 11: 324; type *Synanceja verrucosa* Bloch & Schneider. (Omitted in "Genera of Fishes.")

Family 497. **CARACANTHIDÆ**

- Micropus** Gray, 1831, 139. **Crossoderma** Guichenot, 1869, 354.
Caracanthus Kröyer, 1845, 227. **Trachycephalus** De Vis, 1884, 427.
Amphiprionichthys Bleeker, 1855, 263.

Family 498. **PATÆCIDÆ**

- Patæcus** Richardson, 1844, 222. **Neopatæcus** Steindachner, 1884, 430.

Family 498a. **GNATHANACANTHIDÆ**

(Velvet Fishes)

- Gnathanacanthus** Bleeker, 1855, 263. **Beridia** Castelnau, 1877, 388.
Holoxenus Günther, 1876, 385.

Series **HEXAGRAMMIFORMES**Family 499. **ANOPLOPOMIDÆ**

(Skil Fishes; Sable Fishes)

- Anoplopoma** Ayres, 1858, 277. **Eoscorpius** Jordan & J. Z. Gilbert, 1919, 569.
Scombrocottus Peters, 1872, 366.

Family 500. **ERILEPIDÆ**

(Fat-Priests)

- Myriolepis** Lockington, 1880, 404. **Ebisus** Jordan & Snyder, 1901, 494.
Erilepis Gill, 1893, 461.

Family 501. **HEXAGRAMMIDÆ**

(Greenlings)

- | | |
|---|---|
| Hexagrammos ^{418a} (Steller) Tilesius,
1809, 76. | Grammatopleurus Gill, 1861, 305. |
| Labrax Pallas, 1810, 77. | Pleurogrammus Gill, 1861, 305. |
| Lebius (Steller) Pallas, 1811, 84. | Acantholebius Gill, 1861, 305. |
| Chirus (Steller) Pallas, 1811, 84. | Octogrammus Bleeker, 1874, 372. |
| Chiropsis Girard, 1857, 275, 410. | Hexagrammoides Gracianov, 1907, 524. |
| Agrammus Günther, 1860, 296. | ACHRESTOGRAMMUS ⁴¹⁷ Jordan, 1921. |
| | ZEMIAGRAMMUS ⁴¹⁸ Jordan, 1921. |

^{418a} Usually corrected to *Hexagrammus*.⁴¹⁷ "Fossil Fishes Cal. Tertiary," 289; orthotype *Hexagrammos achrestus* Jordan & Gilbert.⁴¹⁸ *Loc. cit.*, 289; orthotype *Zemiagrammus isistius* Jordan.Family 502. **OPHIODONTIDÆ**

(Cultus Cods)

- | | |
|------------------------------------|------------------------------------|
| Ophiodon Girard, 1854, 257. | Oplopoma Girard, 1856, 269. |
|------------------------------------|------------------------------------|

Family 503. **OXYLEBIIDÆ**

- Oxylebius**
- Gill, 1862, 316.

Family 504. **ZANIOLEPIDÆ**

- | | |
|--------------------------------------|-------------------------------------|
| Zaniolepis Girard, 1857, 275. | Xantocles Jordan, 1917, 562. |
|--------------------------------------|-------------------------------------|

Series **PLATYCEPHALIFORMES**Family 505. **HOPLICHTHYIDÆ**

- Hoplichthys**
- ⁴¹⁹
- Cuvier & Valenciennes,
-
- 1829, 133.

⁴¹⁹ Also spelled *Oplichthys*.Family 506. **PLATYCEPHALIDÆ**

(Flat-heads)

- | | |
|---|---|
| Platycephalus Bloch, 1795, 53. | Insidiator Jordan & Snyder, 1900, 490. |
| Calliomorus Lacépède, 1800, 56. | Grammoplites Fowler, 1904, 508. |
| Centranodon Lacépède, 1803, 66. | Bembradium Gilbert, 1905, 513. |
| Bembras Cuvier & Valenciennes, 1829,
133. | Elates Jordan & Seale, 1907, 525. |
| Amora ⁴²⁰ Gray, 1833, 179. | Rogadius Jordan & Richardson, 1908, 528. |
| Neoplatycephalus Castelnau, 1872, 362. | Bambradon J. & R., 1908, 528. |
| Parabembras Bleeker, 1874, 372. | Hyalorhynchus Ogilby, 1910, 536. |
| Thysanophrys Ogilby, 1898, 483. | Inegocia Jordan & Thompson, 1913, 549. |
| | Onigocia J. & T., 1913, 549. |

⁴²⁰ Name corrected to *Anaora* on a plate examined.*Series* **COTTIFORMES**Family 507. **JORDANIIDÆ**

Ventral rays I, 5; head narrow; scales present, often reduced each to a few radiating spinules.

"The scales of *Jordania zonope* treated with hot caustic potash are nothing but rows of strong ctenoid spines placed as they would be in true scales. In the dorsal region the rows are curved as they would be were they margins of ctenoid scales. In *Lepidocottus brevis* (Agassiz) the ctenoid elements are as in *Jordania*, but complete scales are present with circuli and basal radii as usual. It must be supposed that *Jordania* came from such an ancestor and represents the survival of certain elements of scale structure without the scales." (Cockerell, *Science*, Dec. 19, 1919, 568.)

LEPIDOCOTTUS Sauvage, 1875, 380.

Paricelinus Eigenmann & Eigenmann,
1889, 445.

Jordania Starks, 1895, 469.

Alcidea Jordan & Evermann, 1898, 481.

Eocottus Woodward, 1901, 496.

Family 508. ICELIDÆ

Hemilepidotus Cuvier, 1829, 127.

Triglops Reinhardt, 1832, 175.

Temnistia Richardson, 1836, 136.

Enophrys Swainson, 1839, 202.

Icelus Kröyer, 1845, 226.

Aspicottus Girard, 1854, 257.

Clypeocottus Ayres, 1854, 257.

Calycilepidotus Ayres, 1855, 282.

Artedius Girard, 1856, 269.

Ceratocottus Gill, 1859, 290.

Melletes Bean, 1879, 398.

PARAPERCA Sauvage, 1875, 380.

Chitonotus Lockington, 1881, 416.

Prionistius Bean, 1883, 421.

Icelinus Jordan, 1885, 433.

Artediellus Jordan, 1885, 433.

Radulinus Gilbert, 1890, 451.

Ruscarius Jordan & Starks, 1895, 469.

Astrolytes J. & S., 1895, 469.

Rastrinus Jordan & Evermann, 1896, 474.

Axyrias Starks, 1896, 475.

Tarandichthys Jordan & Evermann, 1896,
472.

*Sternias*⁴²¹ J. & E., 1898.

Stelgistrum Jordan & Gilbert, 1898, 482.

Archistes J. & G., 1898, 482.

Stlengis Jordan & Starks, 1904, 509.

Schmidtia J. & S., 1904, 509.

Daruma J. & S., 1904, 509.

Ricuzenius J. & S., 1904, 509.

Schmidtina J. & S., 1904, 510.

Stelgidonotus Jordan & Thompson, 1905,
513.

Taurulus Gracianov, 1907, 524.

Agonocottus Pavlenko, 1910, 537.

Orthopnias Starks & Mann, 1911, 541.

Archaulus Gilbert & Burke, 1912, 543.

Thyriscus Gilbert & Burke, 1912, 543.

*Pterygiocottus*⁴²² Bean & Weed, 1920.

⁴²¹ "Fishes of North and Middle America," II, 1926; orthotype *Triglops xenostethus* Gilbert. (Omitted in "Genera of Fishes.")

⁴²² "Notes on a Collection of Fishes from Vancouver Island, British Columbia," *Trans. Roy. Soc. Canada*, 13: 73; orthotype *P. macouni* Bean & Weed; an ally of *Artedius*.

Family 509. BLEPSIIDÆ

Skin covered with velvety prickles, form compressed.

Blepsias Cuvier, 1829, 127.

Peropus Lay & Bennett, 1839, 125.

Nautichthys Girard, 1859, 290.

Histiocottus Gill, 1888, 441.

Nautiscus Jordan & Evermann, 1898,
481.

Family 510. SCORPÆNICHTHYIDÆ

(Cabezones)

Ventral rays I, 5; head broad; skin smooth.

Scorpænichthys Girard, 1854, 257.

Family 511. **COTTIDÆ**
(Sculpins)

Ventral rays I, 2, to I, 4; skin naked or with imbedded plates or prickles; general form more or less depressed.

Even after the elimination of several aberrant genera, *Jordania*, *Scorpenichthys*, *Ascelichthys*, *Synchirus*, *Psychrolutes*, *Blepsias*, *Abyssocottus*, *Hemitripterus*, *Ereunias*, *Cottocomephorus*, *Comephorus*, *Rhamphocottus*, etc., the *Cottidæ* are still extremely diversified and may, after study of the skeletons, require further subdivision into families or subfamilies. For purpose of laying stress on distinctions, we further separate certain more or less natural groups, the form centering about *Icelus* being apparently derived from the ancestors of *Jordania*, while *Cottus*, *Myoxocephalus* and their varied associates may have sprung from ancestors of *Scorpenichthys*. Both *Jordania* and *Scorpenichthys* have normal ventrals (I, 5), but little else in common. Most of the allies of *Icelus* and *Hemilepidotus* have developed scales, while none of the *Cottidæ* as here restricted have true scales other than prickles or imbedded dermal plates. But in a general treatment of the group, such a minute subdivision of families may be found superfluous.

Cottus Linnæus, 1758, 12.

Uranoscopus Gronow, 1763, 19.

Myoxocephalus (Steller) Tilesius, 1811, 83.

Pegedictis⁴²³ Rafinesque, 1820, 113.

Trachydermus Heckel, 1837, 189.

Gymnocanthus⁴²⁴ Swainson, 1839, 202.

Uranidea Dekay, 1842, 210.

Centridermichthys Richardson, 1844, 222.

Phobetor Kröyer, 1845, 226.

Scorpicthys Bonaparte, 1845, 226.

Podabrus Richardson, 1848, 240.

Aphobus Gistel, 1848, 237.

Pseudoblennius Temminck & Schlegel, 1850, 247.

Pseudoclinus T. & S., 1850, 247.

Cottopsis Girard, 1851, 249.

Acanthocottus Girard, 1851, 249.

Leptocottus Girard, 1854, 257.

Triglopsis Girard, 1854, 257.

Leiocottus Girard, 1856, 269.

Oligocottus Girard, 1856, 269.

Hoplocottus Kaup, 1858, 282.

Boreocottus Gill, 1859, 290.

Porocottus Gill, 1859, 290.

Ptyonotus Günther, 1860, 296.

Potamocottus Gill, 1861, 307.

Oncocottus Gill, 1861, 302, 313.

Clinocottus Gill, 1861, 305.

Blennicottus Gill, 1861, 305.

Megalocottus Gill, 1861, 305.

Bunocottus⁴²⁵ Kner, 1868, 352.

Cottunculus Collett, 1875, 379.

Elaphocottus Sauvage, 1878, 397.

Tauridea Jordan & Rice, 1878, 395.

⁴²³ Description confused with that of *Catonotus*.

⁴²⁴ Corrected usually to *Gymnacanthus*.

⁴²⁵ This genus, apparently cottoid, is described by Kner as lacking ventral fins, although these structures are plainly shown in his excellent figure. If the description is correct, the genus should stand as a separate family. The fish, *Bunocottus apus*, is said to be from deep water, off Cape Horn. But no other cottoid is known south of the Tropic of Cancer. If Kner's account is correct *Bunocottus* may be an aberrant scorpenoid.

- Malacocottus** Bean, 1890, 450.
Dasycottus Bean, 1890, 450.
Argyrocottus Herzenstein, 1892, 458.
Zesticelus Jordan & Evermann, 1896, 474.
Oxycottus J. & E., 1898, 481.
Sigmistes Rutter, 1898, 482.
Dialarchus Greeley, 1901, 493.
Rusciculus Greeley, 1901, 493.
Eximia Greeley, 1901, 493.
Thecopterus H. M. Smith, 1904, 511.
Cottiusculus Schmidt, 1904, 509, 511.
Rheopresbe Jordan & Starks, 1904, 509.
Ainocottus J. & S., 1904, 509.
Crossias J. & S., 1904, 509.
Elaphichthys J. & S., 1904, 509.
Alcichthys J. & S., 1904, 509.
Furcina J. & S., 1904, 509.
Ocynectes J. & S., 1904, 509.
Bero J. & S., 1904, 509.
Vellitor J. & S., 1904, 509.
Cephalocottus Gracianov, 1907, 524.
Mesocottus Gracianov, 1907, 524.
Rusulus Starks & Mann, 1911, 541.
Trichocottus Soldatov & Pavlenko, 1915, 557.
Taurocottus S. & P., 1915, 557.
HAYIA Jordan & Gilbert, 1919, 569.
Greeleya Jordan, 1920, 571.

Family 512. **ABYSSOCOTTIDÆ**

Degenerate sculpins found in the depths of Lake Baikal.

- Procottus** Gracianov, 1902, 498.
Batrachocottus Berg, 1903, 501.
Abyssocottus Berg, 1906, 516.
Asprocottus Berg, 1906, 516.
Linnocottus Berg, 1906, 516.
Cottinella Berg, 1907, 521.

Family 513. **ASCELICHTHYIDÆ**

Ventral fins wanting; head broad; skins smooth.

- Ascelichthys** Jordan & Gilbert, 1880, 404.

Family 514. **PSYCHROLUTIDÆ**

- Psychrolutes** Günther, 1861, 307.
Gilbertina Jordan & Starks, 1895, 469.
Gilbertidia Berg, 1899, 484.
Eurymen Gilbert & Burke, 1912, 543.

Family 515. **NEOPHRYNICHTHYIDÆ**

Until the New Zealand genus *Neophrynichthys* can be critically examined, it seems best to regard it as constituting a distinct family. As no other cottoid forms have been found south of the Tropic of Cancer, I associate with it provisionally a genus from Buenos Aires.

- Neophrynichthys** Günther, 1876, 385.
Besnardia Lahille, 1913, 549.

Family 516. **SYNCHIRIDÆ**

- Synchirus** Bean, 1889, 444.

Family 517. **EREUNIIDÆ**

- Ereunias** Jordan & Snyder, 1901, 493.

Family 518. **RHAMPHOCOTTIDÆ**

- Rhamphocottus** Günther, 1874, 375.

Family 519. **HEMITRIPTERIDÆ**

(Sea Ravens)

- Hemitripterus** Cuvier, 1829, 117.
Ulca Jordan & Evermann, 1896, 472.

Family 520. **COTTOCOMEPHORIDÆ**

Cottocomephorus Pellegrin, 1900, 491. **Baicalocottus** Berg, 1903, 501.

Family 521. **COMEPHORIDÆ**

(Baical Fishes)

Comephorus Lacépède, 1800, 56. **Elæorhōtis** Pallas, 1811, 83.

Family 522. **AGONIDÆ**

(Sea Poachers; Alligator Fishes)

Percis Scopoli, 1777, 41.	Bothragonus (Gill) Jordan & Gilbert, 1882, 420.
Cataphractus Klein, 1777, 43.	Bathyagonus Gilbert, 1890, 451.
Agonus ⁴²⁶ Bloch & Schneider, 1801.	Xenochirus Gilbert, 1890, 451.
Aspidophorus Lacépède, 1802, 62.	Cheiragonus Herzenstein, 1890, 451.
Phalangistes Pallas, 1811, 83.	Xystes Jordan & Starks, 1895, 469.
Cataphractus (Klein) Fleming, 1828, 123.	Averruncus J. & S., 1895, 469.
Hippocephalus Swainson, 1839, 202.	Stelgis Cramer, 1895, 469.
Brachyopsis Gill, 1861, 304, 305.	Pallasina Cramer, 1895, 469.
Agonopsis Gill, 1861, 305.	Stellerina Cramer, 1896, 474.
Leptagonus Gill, 1861, 305.	Sarritor Cramer, 1896, 474.
Hypsagonus Gill, 1861, 305.	Occa Jordan & Evermann, 1898, 481.
Podothecus Gill, 1861, 304.	Draciscus Jordan & Snyder, 1901, 493.
Paragonus Gill, 1862, 305.	Xeneretmus Gilbert, 1903, 504.
Agonomalus Guichenot, 1866, 341.	Tilesina Schmidt, 1904, 511.
Paragonus Guichenot, 1869, 355.	Asterotheca Gilbert, 1915, 556.
Siphagonus Steindachner, 1876, 387.	Paragonus Ribeiro, 1918, 564.
Odontopyxis Lockington, 1879, 400.	Ribeiroa Jordan, 1920, 571.

⁴²⁶ "Systema Ichthyologia," 104; type *Cottus cataphractus* Linnæus. (Omitted in "Genera of Fishes.")

Family 523. **ASPIDOPHOROIDIDÆ**

Aspidophoroides Lacépède, 1802, 62.	Anoplagonus Gill, 1861, 305.
Canthirhynchus Swainson, 1839, 202.	Ulcina ⁴²⁷ Cramer, 1896.

⁴²⁷ In Jordan & Evermann's "Check List," 1896, 449; type *Aspidophoroides olriki* Lütken. (Omitted in "Genera of Fishes.")

Series **CYCLOPTERIFORMES**Family 524. **CYCLOPTERIDÆ**

(Lump Fishes)

Cyclopterus Linnæus, 1758, 12.	Eumicrotremus Gill, 1862, 317, 331.
Oncotion Klein, 1777, 42.	Cyclopteroideus Garman, 1892, 457.
Lumpus Rafinesque, 1815, 90.	Lethotremus Gilbert, 1895, 469.
Lumpus Cuvier, 1817, 171.	Cyclolumpus Tanaka, 1912, 546.

Family 525. **LIPAROPIDÆ**

Aptocyclus De la Pylaie, 1835, 183.	Liparops Garman, 1892, 457.
Cyclopterichthys Steindachner, 1881, 417.	

Family 526. **LIPARIDÆ** (*Cyclogasteridæ*)
(Sea Snails)

- Cyclogaster* Gronow, 1763, 18.
Liparis Scopoli, 1777, 41.
Liparis Röse, 1793, 52.
Liparius Rafinesque, 1815, 90.
Massaria Gistel, 1848, 236.
Careproctus Kröyer, 1861, 308.
Neoliparis Steindachner, 1875, 381.
Paraliparis Collett, 1878, 393.
*Amitra*⁴²⁸ Goode, 1880, 402.
Monomitra Goode, 1883, 424.
Gymnolycodes Vaillant, 1888, 444.
Enantioliparis Vaillant, 1888, 443.
Bathyphasma Gilbert, 1895, 467.
Gyrinichthys Gilbert, 1895, 467.
Rhinoliparis Gilbert, 1895, 467.
Hilgendorfia Goode & Bean, 1895, 468.
*Amitrichthys*⁴²⁸ Jordan & Evermann, 1896, 474.
Allurus J. & E., 1896, 474.
Allochir J. & E., 1896, 474.
Caremitra J. & E., 1896, 474.
Lyoliparis J. & E., 1896, 474.
Crystallichthys Jordan & Gilbert, 1898, 482.
Prognurus J. & G., 1898, 482.
Allinectes Jordan & Evermann, 1898, 482.
Crystallias Jordan & Snyder, 1902, 499.
Trismegistus J. & S., 1904, 508.
Acantholiparis Gilbert & Burke, 1912, 543.
Elassodiscus G. & B., 1912, 543.
Polypera Burke, 1912, 542.
*Nectoliparis*⁴²⁹ Gilbert & Burke, 1912, 543.
Lipariscus Gilbert, 1915, 556.
Cyclogaster (Gronow) Burke, 1912.

⁴²⁸ A synonym of *Paraliparis* proper, according to Sigurd Johnsen.

⁴²⁹ According to Sigurd Johnsen of Bergen *Nectoliparis* is a larval *Paraliparis*. If so, it would seem to be an ally of *P. holomelas*, having a wide gill-slit, and may be generically distinct from *Paraliparis*, the type of which has a narrow slit as in the group called *Amitrichthys*.

Series **TRIGLIFORMES**

Family 527. **PERISTEDIIDÆ**

- Peristedion*⁴³⁰ Lacépède, 1802, 62.
Otonus Rafinesque, 1810, 82.
Peristethus Kaup, 1858, 282.
Vulsiculus Jordan & Evermann, 1896, 475.
*Gargariscus*⁴³¹ Smith, 1917.
*Heminodus*⁴³² Smith, 1917.
*Scalicus*⁴³³ Jordan, 1922.

⁴³⁰ Written *Peristethus* by some authors.

⁴³¹ "New Genera of Deep Sea Gurnards (*Peristediidae*) from the Philippine Islands," *Proc. Biol. Soc. Wash.*, 145; type *Gargariscus semidentatus* Smith. (Overlooked in "Genera of Fishes.")

⁴³² Smith, *op. cit.*, 146; type *Heminodus philippinus* Smith.

⁴³³ New genus: type *Peristedion amiscus* Jordan & Starks; distinguished by the shovel-shaped snout without horns at the angles. Japan.

Family 528. TRIGLIDÆ

- Trigla** Linnæus, 1758, 14.
Corystion Klein, 1775, 41.
Prionotus Lacépède, 1802, 62.
Lepidotrigla Günther, 1860, 296.
Hoplonotus Guichenot, 1866, 341.
Ornichthys Swainson, 1839, 201.
Microtrigla Kaup, 1873, 369.
Chelidonichthys Kaup, 1873, 370.
Palænichthys Kaup, 1873, 370.
Lyrichthys Kaup, 1873, 370.
TRIGLOIDES Van Beneden, 1871, 360.
Chriolax Jordan & Gilbert, 1878, 396.
PODOPTERYX Sauvage, 1880, 406.
Bellator Jordan & Evermann, 1896, 475.
Merulinus J. & E., 1898, 481.
Gurnardus J. & E., 1898, 481.
Pterygotrigla Waite, 1899, 488.
Colotrigla Gill, 1905, 513.
Fissala Gill, 1905, 513.
Otohime Jordan & Starks, 1907, 525.
Paratrigla Ogilby, 1911, 540.
Exolissus⁴⁸⁴ Jordan, 1923.

⁴⁸⁴ New genus: type *Prionotus alepis* Alcock, *Nat. Hist. Notes*, etc., 1889, 303. This genera differs from *Prionotus* in the absence of scales.

Series DACTYLOPTERIFORMES

Family 529. DACTYLOPTERIDÆ (*Cephalacanthidæ*)

- Cephalacanthus** Lacépède, 1803, 62.
Dactylopterus Lacépède, 1803 62.
Cephacandia Rafinesque, 1815, 89.
Gonocephalus Gronow, 1854, 258.
Dactyloptena Jordan & Richardson, 1908, 528.
Daicocus J. & R., 1908, 528.
Ebisinus J. & R., 1908, 528.

Order HOLCONOTI

Family 530. EMBIOTOCIDÆ

- Ditrema** Temminck & Schlegel, 1844, 223.
Embiotoca Agassiz, 1853, 252.
Rhacochilus Agassiz, 1854 (May), 255.
Holconotus Agassiz, 1854 (May), 255.
Amphistichus Agassiz, 1854 (May), 255.
Cymatogaster Gibbons, 1854 (May 18), 257.
Hyperprosopon Gibbons, 1854 (May 18), 257.
Micrometrus Gibbons, 1854 (May 30), 257.
Pachylabrus Gibbons, 1854 (June 21), 257.
Mytilophagus Gibbons, 1854 (July), 257.
Cymatogaster Gibbons, 1854 (June 21; not of May 18), 257.
Damalichthys Girard, 1854 (August), 258.
Abeona Girard, 1854, 258.
Ennichthys Girard, 1854, 258.
Phanerodon Girard, 1854, 258.
Metrogaster (Agassiz) Alex. Agassiz, 1861, 300.
Bramopsis (Agassiz), A. Agassiz, 1861, 300.
Tæniotoca A. Agassiz, 1861, 300.
Hypsurus A. Agassiz, 1861, 300.
Brachyistius Gill, 1862, 316.
Hypocritichthys Gill, 1862, 316.
Mænichthys (Kaup) Bleeker, 1876, 383.
Sema Jordan, 1878, 396.
Neoditrema Steindachner & Döderlein, 1883, 426.
Zalemibus Jordan & Evermann, 1896, 473.
Tocichthys Hubbs, 1918, 563.
Amphigonopterus Hubbs, 1918, 563.

Family 531. HYSTEROCARPIDÆ

- Hysteroctopus** Gibbons, 1854, 257.
Sargosomus (Agassiz) A. Agassiz, 1861, 300.
Dacentrus Jordan, 1878, 396.

Order CHROMIDES

Family 532. POMACENTRIDÆ

- Abudefduf** Forskål, 1775, 33.
Prochilus Klein, 1775, 39.
Amphiprion Bloch & Schneider, 1801, 59.
Glyphisodon⁴³⁵ Lacépède, 1803, 64.
Pomacentrus Lacépède, 1803, 64.
Chromis Cuvier, 1815, 93.
Premnas Cuvier, 1817, 106.
Heliastes⁴³⁶ Cuvier, 1829, 128.
Dascyllus⁴³⁷ Cuvier, 1829, 128.
Pristotis Rüppell, 1835, 184.
Chrysiptera Swainson, 1839, 199.
ODONTEUS Agassiz, 1839, 194.
Stegastes Jenyns, 1842, 211.
Pirene Gistel, 1848, 235.
Tetradrachmum Cantor, 1849, 241.
Furcaria Poey, 1860, 299.
Hypsypops Gill, 1861, 305.
Lepidozygus Günther, 1862, 318.
Microspathodon Günther, 1862, 318.
Parma Günther, 1862, 318.
Euschistodus Gill, 1862, 315.
Acanthochromis Gill, 1863, 324.
Dischistodus Gill, 1863, 324.
Ayresia Cooper, 1863, 323.
Pomatapriion Gill, 1863, 324.
Onychognathus Troschel, 1866, 343.
Jerdonia Day, 1870, 356.
Paraglyphidodon Bleeker, 1876, 384.
Heptadecacanthus Alleyne & Macleay, 1877, 387.
Parapomacentrus Bleeker, 1877, 387.
Glyphidodontops Bleeker, 1877, 387.
Brachypomacentrus Bleeker, 1877, 387.
Eupomacentrus Bleeker, 1877, 387.
Amblypomacentrus Bleeker, 1877, 387.
Daya⁴³⁸ Bleeker, 1877.
Hemiglyphidodon Bleeker, 1879, 398, 402.
Hermosilla Jenkins & Evermann, 1888, 442.
Nexilaris⁴³⁹ Gilbert, 1896, 475.
Azurina Jordan & McGregor, 1898, 481.
Nexilosus Heller & Snodgrass, 1903, 503.
Actinicola Fowler, 1904, 508.
Cheiloprion Weber, 1913, 551, 561.
Hoplochromis⁴⁴⁰ Fowler, 1918.
Ctenoglyphidodon⁴⁴¹ Fowler, 1918.
Azurella Jordan, 1919, 567.
*Actinochromis*⁴⁴².
Centrochromis⁴⁴³ Norman, 1922.

⁴³⁵ Often written *Glyphidodon*.

⁴³⁶ Also written *Heliastes*.

⁴³⁷ Also written *Dascillus*.

⁴³⁸ Bleeker, *Verh. Holl. Mij. Harlem*, 71; orthotype *Pomacentrus jerdoni* Day. (Omitted in "Genera of Fishes.")

⁴³⁹ Misprinted *Nexilaris*.

⁴⁴⁰ *Proc. Acad. Nat. Sci. Phila.*, 70: 66; orthotype *Heliastes cæruleus* Cuv. & Val.

⁴⁴¹ *Proc. Acad. Nat. Sci. Phila.*, 1918, 59; type *Abudefduf melanopselion* Fowler.

⁴⁴² Orthotype *A. lividus*. (Further details lacking.)

⁴⁴³ J. R. Norman, "Fishes from Tobago," *Ann. Mag. Nat. Hist.*, 9: 533; orthotype *Glyphidodon rudis* Poey.

Family 533. PRISCACARIDÆ

This extinct group of the American Eocene differs from the *Cichlidæ* in the possession of vomerine teeth.

PRISCACARA Cope, 1877, 388.

COCKERELLITES⁴⁴⁴ Jordan, 1923.

⁴⁴⁴ New genus, distinguished from *Priscacara* by the weak ventral spine and the long soft dorsal of 13 or 14 rays; orthotype *Priscacara liops* Cope. Named for Theodore Dru Alison Cockerell, of the University of Colorado.

Family 534. **CICHLIDÆ**

This vast group covers a wide variety of forms, river fishes of both tropics, and doubtless requires subdivision.

- Cichla** Bloch & Schneider, 1801, 59.
Chromis Cuvier, 1817, 102.
Etropius Cuvier & Valenciennes, 1830, 135.
Cichlaurus Swainson, 1839, 198.
Cichlasoma Swainson, 1839, 200.
Astronotus Swainson, 1839, 200.
Chætolabrus Swainson, 1839, 199.
Microgaster Swainson, 1839, 199.
Tilapia⁴⁴⁵ Andrew Smith, 1840, 244.
Uaru Heckel, 1840, 207.
Symphysodon Heckel, 1840, 207.
Pterophyllum Heckel, 1840, 207.
Acara Heckel, 1840, 207.
Heros Heckel, 1840, 207.
Chætobranchus Heckel, 1840, 207.
Geophagus Heckel, 1840, 207.
Crenicichla Heckel, 1840, 207.
Batrachops Heckel, 1840, 207.
Chætostoma⁴⁴⁶ Heckel, 1846, 230.
Sarotherodon Rüppell, 1852, 251.
Coptodon Gervais, 1853, 253.
Herichthys Baird & Girard, 1854, 255.
Plataxoides Castelnau, 1855, 264.
Hemichromis Peters, 1857, 276.
Parachromis Agassiz, 1858, 277.
Hypsophrys Agassiz, 1858, 277.
Amphilophus Agassiz, 1858, 277.
Baiodon Agassiz, 1858, 277.
Chromichthys Duméril, 1858, 280.
Haligenes Günther, 1859, 292.
Hoplarchus Kaup, 1860, 297.
Satanoperca Günther, 1862, 318.
Hyrogonus Günther, 1862, 318.
Mesops Günther, 1862, 318.
Mesonauta Günther, 1862, 318.
Petenia Günther, 1862, 318.
Chromis (Cuvier) Günther, 1862, 318.
Theraps Günther, 1862, 318.
Pseudetroplus (Bleeker) Günther, 1862, 318.
Nandopsis Gill, 1862, 315.
Melanogenes Bleeker, 1863, 321.
Neetroplus Günther, 1866, 341.
Paretroplus Bleeker, 1868, 348.
Paratilapia Bleeker, 1868, 348.
Acaropsis Steindachner, 1875, 381.
Crenicara Steindachner, 1875, 381.
Dicrossus (Agassiz) Steindachner, 1875, 381.
Saraca Steindachner, 1875, 381.
Paracara Bleeker, 1878, 392.
Ptychochromis Steindachner, 1880, 406.
Hoplotilapia Steindachner, 1888, 443.
Haplochromis Hilgendorf, 1888, 442.
Oreochromis Günther, 1889, 446.
Lamprologus Schilthuis, 1890, 452.
Ctenochromis⁴⁴⁷ Pfeffer, 1893.
Retroculus Eigenmann & Bray, 1894, 464.
Æquidens Eigenmann & Bray, 1894, 464.
Pelmatochromis Steindachner, 1894, 465.
Docimodus Boulenger, 1896, 471.
Corematodus Boulenger, 1896, 471.
Boggiana Perugia, 1897, 478.
Chromidotilapia Boulenger, 1898, 479.
Telmatochromis Boulenger, 1898, 479.
Julidochromis Boulenger, 1898, 479.
Eretmodus Boulenger, 1898, 479.
Bathybates Boulenger, 1898, 479.
Tropheus Boulenger, 1898, 479.
Petrochromis Boulenger, 1898, 479.
Simochromis Boulenger, 1898, 479.
Perissodus Boulenger, 1898, 479.
Plecodus Boulenger, 1898, 479.
Ectodus Boulenger, 1898, 576.
Xenochromis Boulenger, 1899, 485.
Xenotilapia Boulenger, 1899, 485.
Trematocara Boulenger, 1899, 485.
Steatocranus Boulenger, 1899, 485.
Grammatotria Boulenger, 1899, 485.
Pseudoplesiops Boulenger, 1899, 485.
Spathodus Boulenger, 1900, 488.
Asprotilapia Boulenger, 1901, 492.
Gephyrochromis Boulenger, 1901, 492.

⁴⁴⁵ Type *Tilapia sparrmanni* Smith.

⁴⁴⁶ Written *Chatostomus* by Kner, 1854.

⁴⁴⁷ Type *Ctenochromis pectoralis*, a synonym of *Haplochromis*. (Omitted in "Genera of Fishes" and in *Zoological Record*.)

- Hemilapia* Boulenger, 1902, 497.
Cyrtocara Boulenger, 1902, 497.
Chilochromis Boulenger, 1902, 497.
Biotæcus Eigenmann & Kennedy, 1903, 502.
Biotodoma Eigenmann & Kennedy, 1903, 502.
Ophthalmotilapia Pellegrin, 1904, 510.
Boulengerochromis Pellegrin, 1904, 510.
Astatotilapia Pellegrin, 1904, 510.
Nannochromis Pellegrin, 1904, 510.
Astatoreochromis Pellegrin, 1904, 510.
Lepidolamprologus Pellegrin, 1904, 510.
Astatheros Pellegrin, 1904, 510.
Thorichthys Meek, 1904, 510.
Nannacara Regan, 1905, 515.
Parapetenia Regan, 1905, 515.
Astatochromis Pellegrin, 1905, 515.
Platyæniodus Boulenger, 1906, 517.
Haplotaxodon Boulenger, 1906, 517.
Cunningtonia Boulenger, 1906, 517.
Heterogramma Regan, 1906, 520.
Enantiopus Boulenger, 1906. (See Index.)
Chætobranchopsis Eigenmann & Ward, 1907, 522.
Erythrichthys Meek, 1907, 525.
PALÆOCHROMIS Sauvage, 1907, 526, 537.
Tomocichla Regan, 1908, 530.
Chilotilapia Boulenger, 1908, 527.
Bayonia Boulenger, 1911, 538.
Acarichthys Eigenmann, 1912, 543.
Stappersia Boulenger, 1914, 552.
Schubotzia Boulenger, 1914, 552.
*Champschromis*⁴⁴⁸ Boulenger, 1916, 558.
Lobochilotes Boulenger, 1916, 558.
Gymnogeophagus Ribeiro, 1918, 565.
Nannacara Ribeiro, 1918, 564.
Pseudopercis Ribeiro, 1918, 564.
Otopharynx Regan, 1920, 572.
Limnotilapia Regan, 1920, 572.
Cyathopharynx Regan, 1920, 572.
Limnochromis Regan, 1920, 572.
Cyphotilapia Regan, 1920, 572.
Lipochromis Regan, 1920, 572.
Neochromis Regan, 1920, 572.
Cnestrostoma Regan, 1920, 572.
Mylochromis Regan, 1920, 572.
Sargochromis Regan, 1920, 572.
Labrochromis Regan, 1920, 572.
Serranochromis Regan, 1920, 572.
Clinodon Regan, 1920, 572.
Callochromis Regan, 1920, 572.
Leptochromis Regan, 1920, 572.
Aulonocranus Regan, 1920, 572.
Hemibates Regan, 1920, 572.
Neotilapia Regan, 1920, 572.
Heterotilapia Regan, 1920, 572.
Tylochromis Regan, 1920, 572.
*Pseudotropheus*⁴⁴⁹ Regan, 1921.
*Cynotilapia*⁴⁵⁰ Regan, 1921.
*Lethrinops*⁴⁵¹ Regan, 1921.
*Rhamphochromis*⁴⁵² Regan, 1921.
*Aulonocara*⁴⁵³ Regan, 1921.
Heterochromis^{453a} Regan, 1922.
Parachromis^{453b} Regan, 1922.
Macropleurodus Regan, 1922. (See Index.)

⁴⁴⁸ A synonym of *Haplochromis*.

⁴⁴⁹ "Cichloid Fishes of Lake Nyassa," *Proc. Zool. Soc. Lond.*, 681; orthotype *Chromis williamsi* Günther.

⁴⁵⁰ *Loc. cit.*, 684; orthotype *C. afra* Günther.

⁴⁵¹ *Loc. cit.*, 718; orthotype *Chromis lethrinus* Günther.

⁴⁵² *Loc. cit.*; orthotype *Hemichromis longiceps* Günther.

⁴⁵³ *Loc. cit.*; orthotype *A. nyassæ* Regan.

^{453a} "Classification of the Fishes of the Family *Cichlidæ* II"; African and Syrian Genera, *Ann. Mag. Nat. Hist. X.*, September, 1922, 252; orthotype *Paratilapia multidens* Pellegrin.

^{453b} *Loc. cit.*, 251; orthotype *Hemichromis sacer* Günther.

Order PHARYNGOGNATHI

Family 535. PHARYNGOPILOIDÆ (*Phyllodontidæ*)

A small extinct family of Labroid fishes, with the upper pharyngeals united into one, the median teeth enlarged.

PHYLLODUS Agassiz, 1844, 217.

PHARYNGOPILUS Cocchi, 1864, 329.

LABRODON Gervais, 1857, 275.

EGERTONIA Cocchi, 1864, 329.

NUMMOPALATUS Rouault, 1858, 284.

PARAPHYLLODUS⁴⁵⁴ Sauvage, 1875.

DIAPHYDUS Schaffh  tli, 1863, 328.

⁴⁵⁴ *Bull. Geol. Soc. France*, 3: 615; name given to species of *Phyllodus* with the median teeth small. (Omitted in "Genera of Fishes.")

Family 536. LABRIDÆ

This family may be naturally separated into the tropical forms, having the vertebræ in normal number ($10 + 15 = 25$), and those with the number increased ($10 + 17 = 27$ to $20 + 21 = 41$). Those with the increased numbers of vertebræ inhabit the colder seas.

Labrus Linn  us, 1758, 13.

Ronchifex Gistel, 1848, 235.

Scarus Gronow, 1763, 19.

PLATYLEMUS Dixon, 1850, 245.

Suillus Catesby, 1771, 30.

Ch  rops R  ppell, 1852, 251.

Cicla Klein, 1775, 39.

Pteragogus Peters, 1855, 266.

Helops Browne, 1789, 47.

Xiphocheilus Bleeker, 1856, 268.

Bodianus⁴⁵⁵ Bloch, 1790, 49.

Cossyphodes Bleeker, 1860, 293.

Cicla R  se, 1793, 52.

Pseudodax⁴⁵⁶ Bleeker, 1861.

Hiatula Lac  p  de, 1800, 57.

Hypsigenys G  nther, 1861, 308.

Harpe Lac  p  de, 1803, 63.

Semicossyphus G  nther, 1861, 308.

Symphodus Rafinesque, 1810, 79.

Tautogolabrus G  nther, 1862, 318.

Tautoga Mitchill, 1814, 86.

Trochocopus G  nther, 1862, 318.

Corycus⁴⁵⁶ Cuvier, 1815, 93.

Decodon G  nther, 1862, 318.

Crenilabrus Cuvier, 1815, 93.

Lepidaplois Gill, 1862, 314, 325.

Diastodon Bowdick, 1825, 119.

Euhypsocara Gill, 1863, 325.

Lachnolaimus⁴⁵⁷ Cuvier, 1829, 130.

Gymnopropoma Gill, 1863, 325.

Clepticus Cuvier, 1829, 130.

Ach  rodus Gill, 1863, 325.

Ctenolabrus Cuvier & Valenciennes, 1839, 194.

Pimelometopon Gill, 1864, 330.

Acantholabrus C. & V., 1839, 194.

Heteroch  rops Steindachner, 1866, 343.

Cossyphus C. & V., 1839, 194.

PHACODUS Cope, 1869, 354.

Malapterus⁴⁵⁸ C. & V., 1839.

CROMMYODUS Cope, 1870, 356.

Cyn  dus Swainson, 1839, 200.

PROTAUTOGA Leidy, 1873, 370.

Ch  erodon Bleeker, 1847, 230.

Torresia Castelnau, 1875, 378.

Platych  rops Klunzinger, 1880, 404.

⁴⁵⁵ By tautonomy, not by first restriction.

⁴⁵⁶ Later written *Coricus*.

⁴⁵⁷ Corrected later to *Lachnol  mus*.

⁴⁵⁸ *Poissons*, 12: 355; type *M. reticulatus* Cuvier & Valenciennes; spelled *Malacopterus* by G  nther. (Omitted in "Genera of Fishes.")

⁴⁵⁹ Bleeker, "Scaroidei," 2; orthotype *Odx moluccensis* Cuvier & Valenciennes. (Omitted in "Genera of Fishes.")

Stylodus Sauvage, 1882, 421.
Pseudosphærodon Noetling, 1885, 434.
Graus Philippi, 1887, 438.
Lappanella Jordan, 1890, 452.
Protautoga di Alessandri, 1896, 471.
Teleogramma Boulenger, 1899, 453.
Verreo Jordan & Snyder, 1902, 499.

Verriculus Jordan & Evermann, 1903, 504.

Chæropsodes Gilchrist & Thompson, 1909, 533.

Gillidia Eastman, 1914, 553.

Eolabroides Eastman, 1914, 552.

Family 537. CORIDÆ

Platiglossus Klein, 1775, 40.
Gomphosus Lacépède, 1802, 61.
Coris Lacépède, 1802, 61.
Hemipteronotus Lacépède, 1802, 61.
Acarauna Sewastianof, 1802, 68.
Elops (Commerson) Lacépède, 1802, 70.
Hologymnosus Lacépède, 1802, 63.
Cheilinus Lacépède, 1802, 63.
Cheilio Lacépède, 1803, 63.
Tautoga Mitchell, 1814, 86.
Micropodus Rafinesque, 1815, 89.
*Xyrichthys*⁴⁶⁰ Cuvier, 1815, 93.
Epibulus Cuvier, 1815, 93.
Aygula Rafinesque, 1815, 90.
Julis Cuvier, 1815, 94.
Novacula Cuvier, 1817, 102.
Anampses (Cuvier) Quoy & Gaimard, 1824, 117.
Amorphocephalus Bowdich, 1825, 119.
Elops (Commerson) Bonaparte, 1831, 175.
Halichæres Rüppell, 1835, 184.
Thalassoma Swainson, 1839, 199.
Crassilabrus Swainson, 1839, 199.
Urichthys Swainson, 1839, 199.
Ichthyacallus Swainson, 1839, 200.
Eupemis Swainson, 1839, 200.
Chlorichthys Swainson, 1839, 200.
Thalliurus Swainson, 1839, 200.
Cirrhilabrus Temminck & Schlegel, 1845, 227.
Neanis Gistel, 1848, 236.
Cheilinoides Bleeker, 1851, 248.
Labroides Bleeker, 1851, 248.

Labrichthys Bleeker, 1854, 256.
Duymæria Bleeker, 1856, 267.
*Xiphocheilus*⁴⁶¹ Bleeker, 1856, 268.
Labrastrum Guichenot, 1860, 296.
Stethojulis Günther, 1861, 308.
Hemigymnus Günther, 1861, 308.
Doratonotus Günther, 1862, 318.
Cymolutes Günther, 1862, 318.
*Ophthalmolepis*⁴⁶² Bleeker, 1862, 300.
Macropharyngodon Bleeker, 1862, 309.
PlatyGLOSSUS (Klein) Bleeker, 1862, 309.
Hemicoris Bleeker, 1862, 309.
Pseudojulis Bleeker, 1862, 309.
Pseudocheilinus Bleeker, 1862, 309.
Pseudocoris Bleeker, 1862, 309.
Guntheria Bleeker, 1862, 309.
Pseudolabrus Bleeker, 1862, 309.
Hemitautoga Bleeker, 1862, 309.
Diproctacanthus Bleeker, 1862, 309.
Novaculichthys Bleeker, 1862, 309.
LeptoJULIS Bleeker, 1862, 309.
*Oxycheilinus*⁴⁶³ Gill, 1862, 315.
Malacocentrus Gill, 1862, 314.
ChæroJULIS Gill, 1862, 314.
Iniistius Gill, 1862, 314.
Dimalacocentrus Gill, 1863, 325.
OxyJULIS Gill, 1863, 325.
Cheiliopsis Steindachner, 1863, 328.
Thysanocheilus Kner, 1865, 338.
Parajulis Bleeker, 1865, 335.
Cheilolabrus Alleyne & Macleay, 1877, 387.
Austrolabrus Steindachner, 1884, 430.

⁴⁶⁰ Spelled also *Xirichthys*.

⁴⁶¹ Corrected to *Xiphochilus*.

⁴⁶² The date of this paper (No. 712) is 1862, and the genera which follow are included in it as well as in No. 754. The type of *Hemicoris* is *Halichæres variegatus* Rüppell; that of *Guntheria*, *G. cæruleovittatus* Bleeker; that of *Hemitautoga*, *Labrus centiquadrus* Lacépède; and of *Novaculichthys*, *Labrus taniourus* Lacépède.

⁴⁶³ Orthotype *Cheilinus arenatus*.

- Julichthys** De Vis, 1885, 431.
Eupetrichthys Ramsey & Ogilby, 1887, 439.
Xyrula Jordan, 1890, 452.
Pictilabrus Gill, 1891, 455.
Julidio Jordan & Evermann, 1896, 473.
Emmeekia J. & E., 1896, 473.
- Iridio** J. & E., 1896, 473.
Amphectes Jordan & Snyder, 1902, 499.
Octocynodon Fowler, 1904, 508.
Chæropsodes Gilchrist & Thompson, 1909, 533.
Bermudichthys Nichols, 1920, 572.
Hinalea⁴⁶⁴ Jordan & Jordan, 1923.

⁴⁶⁴ "Fishes of Hawaii," *Mem. Carnegie Mus.* 69; orthotype *Julis axillaris* Quoy and Gaimard; differs from *Stethojulis* in lacking posterior canines.

Family 538. NEOLABRIDÆ

Allied to the *Coridæ*, but with the weak dorsal spines only 3 or 4 in number.

Neolabrus Steindachner, 1875, 381.

Family 539. SPARISOMIDÆ (*Scarichthyidæ*)

This group is well distinguished from the *Scaridæ*, by its very different pharyngeal dentition as well as by numerous other characters of fins and teeth.

- Leptoscarus** Swainson, 1839, 199.
Sparisoma Swainson, 1839, 199.
Scarus (Forskål) Bleeker, 1849, 240.
Scarichthys Bleeker, 1859, 287.
TAURINICHTHYS Cocchi, 1864, 329.
Cryptotomus Cope, 1871, 361.
- Heteroscarus** Castelnau, 1872, 363.
Calotomus Gilbert, 1890, 451.
SCAROIDES Tould, 1899, 534.
Scaridea Jenkins, 1901, 493.
Xenoscarus Evermann & Radcliffe, 1917, 562.

Family 540. SCARIDÆ (*Callyodontidæ*)

- Callyodon** Gronow, 1763, 19.
Psittacus Catesby, 1771, 31.
Novacula Catesby, 1771, 31.
Scarus⁴⁶⁵ Forskål, 1775, 33.
Callyodon⁴⁶⁶ (Gronow) Scopoli, 1777, 42.
Callyodon (Gronow) Bloch, 1788, 45.
Mormyra Browne, 1789, 46.
Calliodon Bloch & Schneider, 1801, 59.
Odax (Commerson) Lacépède, 1802, 70.
- Aper** (Plumier) Lacépède, 1803, 72.
Calliodon Cuvier, 1829, 130.
Hemistoma Swainson, 1839, 199.
Petronason Swainson, 1839, 199.
Erychthys Swainson, 1839, 199.
Chlorurus Swainson, 1839, 199.
Amphiscarus Swainson, 1839, 199.
Euscarus Jordan & Evermann, 1896, 473.
Loro J. & E., 1896, 473.

⁴⁶⁵ I use this familiar name pending final decision as to the retention of Gronow's non-binomial post-Linnæan generic names.

⁴⁶⁶ Also often written *Calliodon*.

Family 541. ODACIDÆ

- Odax** Cuvier, 1829, 130.
Olisthops⁴⁶⁷ Richardson, 1850, 247.
Coridodax Günther, 1862, 318.
- Heteroscarus** Castelnau, 1872, 363.
Neoodax Castelnau, 1875, 378.

⁴⁶⁷ Spelled *Olistherops* by Günther.

Family 542. SIPHONOGNATHIDÆ

Siphonognathus Richardson, 1857, 276.

Order GOBIOIDEA

Family 543. RHYACICHTHYIDÆ (*Platypteridæ*)

Platyptera (Kuhl & Van Hasselt)
Cuvier, 1829, 130, 189.

Rhyacichthys Boulenger, 1901, 492.

Family 544. ELEOTRIDÆ

(Sleepers)

Eleotris Gronow, 1763, 20.

Pelmatis Browne, 1789, 47.

Gobiomorus Lacépède, 1800, 57.

Gobiomoroides Lacépède, 1800, 57.

Eleotris Bloch & Schneider, 1801, 58.

Bostrychus Lacépède, 1802, 61.

Bostrychoides Lacépède, 1802, 61.

Asellus (Plumier) Lacépède, 1802, 71.

Bostrichthys Duméril, 1806, 75.

Bostrictis Rafinesque, 1815, 88.

Psilus Fischer, 1813, 85.

Psiloides Fischer, 1813, 85.

Pterops Rafinesque, 1815, 88.

Ictiopogon Rafinesque, 1815, 92.

Epiphthalmus Rafinesque, 1815, 90.

Prochilus Cuvier, 1817, 104.

Asterropteryx Rüppell, 1828, 122.

Philypnus Cuvier & Valenciennes, 1837,
188.

Cestreus McClelland, 1842, 212.

Culius Bleeker, 1856, 267, 372.

Butis Bleeker, 1856, 267, 372.

Belobranchus Bleeker, 1856, 268, 372.

Eleotriodes Bleeker, 1857, 275, 373.

Lembus Günther, 1859, 291.

Erotilis Poey, 1860, 299.

Dormitator Gill, 1861, 302, 316.

Mogurnda Gill, 1863, 326.

Gobiomorphus Gill, 1863, 326.

Ophiocara Gill, 1863, 326.

Hypseleotris Gill, 1863, 326.

Odonteleotris Gill, 1863, 326.

Calleleotris Gill, 1863, 326.

Ptereleotris Gill, 1863, 326.

Valenciennesa Bleeker, 1868, 348.

Valenciennesia Bleeker, 1874, 373.

Amblyeleotris Bleeker, 1874, 372.

Eleotrioides Bleeker, 1874, 372.

Guavina Bleeker, 1874, 372.

Oxyeleotris Bleeker, 1874, 372.

Gymneleotris Bleeker, 1874, 372.

Gymnobutis Bleeker, 1874, 372.

Prionobutis Bleeker, 1874, 372.

Odontobutis Bleeker, 1874, 372.

Priolepis (Ehrenberg) Bleeker, 1874, 373.

Brachyeleotris Bleeker, 1874, 373.

Hetereleotris Bleeker, 1874, 373.

Pogoneleotris Bleeker, 1875, 377.

Giuris Sauvage, 1879, 401.

Ioglossus Bean, 1882, 419, 420.

Alexurus Jordan, 1895, 468.

Krefftius Ogilby, 1897, 478.

Carassiops Ogilby, 1897, 477.

Mulgoa Ogilby, 1897, 478.

Ophiorrhinus Ogilby, 1897, 478.

Caulichthys Ogilby, 1898, 483.

Vireosa Jordan & Snyder, 1901, 494.

Eviota Jenkins, 1903, 504.

Parioglossus⁴⁶⁸ Regan, 1912, 545.

Microeleotris Meek & Hildebrand, 1916,
559.

Hemieleotris M. & H., 1916, 560.

Leptophilypnus M. & H., 1916, 559.

⁴⁶⁸ Misprinted *Pariglossus* by authors.

Family 545. GOBIIDÆ

(Gobies)

Gobius Linnæus, 1758, 12.

Gobio Klein, 1779, 43.

Benthophilus Eichwald, 1831, 176.

Oplopomus (Ehrenberg) Cuvier & Va-
lenciennes, 1837, 188.

Cryptocentrus (Ehrenberg) Cuvier &
Valenciennes, 1837, 188, 374.

Apocryptes Cuvier & Valenciennes, 1837,
188.

Hexacanthus Nordmann, 1838, 193.

Ruppellia Swainson, 1839, 202.

Gobileptes Swainson, 1839, 198.

Brachyochirus Nardo, 1841, 209.

Chæturichthys Richardson, 1844, 222.

- Gobiodon** (Kuhl & Van Hasselt) Bleeker, 1856, 267.
Oxyurichthys Bleeker, 1858, 279.
Lepidogobius Gill, 1858, 280.
Tridentiger Gill, 1858, 280.
Triænophorus Gill, 1858, 280.
Triænophorichthys Gill, 1858, 280.
Chænogobius Gill, 1858, 280.
Ctenogobius Gill, 1858, 281.
Gobionellus Girard, 1859, 291.
Gobiosoma Girard, 1859, 291.
Euctenogobius Gill, 1859, 291.
Evorthodus Gill, 1859, 289.
Acanthogobius Gill, 1859, 290.
Glossogobius Gill, 1859, 290.
Rhinogobius Gill, 1859, 290.
Luciogobius Gill, 1859, 290.
Smaragdus Poey, 1860, 299.
Chonophorus Poey, 1860, 299.
Awaous Steindachner, 1860, 299.
Cyclogobius Steindachner, 1860, 299.
Oplopomus Steindachner, 1860, 299.
Gobiopsis Steindachner, 1860, 299.
Oxyurichthys Bleeker, 1860, 294.
Latrunculus Günther, 1861, 307.
Lentipes Günther, 1861, 307.
Lophogobius Gill, 1862, 316.
Eucyclogobius Gill, 1862, 316.
Gillichthys Cooper, 1863, 323.
Boreogobius Gill, 1863, 326.
Crystallogobius Gill, 1863, 326.
Gymnogobius Gill, 1863, 326.
Ophiogobius Gill, 1863, 326.
Synechogobius Gill, 1863, 326.
Pterogobius Gill, 1863, 326.
Coryphopterus Gill, 1863, 325.
Deltentosteus Gill, 1863, 325.
Pomatoschistus Gill, 1863, 325.
Cotylopus Guichenot, 1864, 332.
Gillia Günther, 1864, 334.
Orthostomus Kner, 1868, 352.
Gobiichthys Klunzinger, 1871, 361.
Paragobiodon Bleeker, 1873, 367.
Lophiogobius Günther, 1873, 369.
Ellerya Castelnau, 1873, 367.
Alepidogobius Bleeker, 1874, 373.
Gobiopterus Bleeker, 1874, 373.
Leptogobius Bleeker, 1874, 373.
Triænopogon Bleeker, 1874, 373.
Sicydiops Bleeker, 1874, 373.
Microsicydium Bleeker, 1874, 373.
Brachygobius Bleeker, 1874, 373.
Callogobius Bleeker, 1874, 373.
Platyogobius Bleeker, 1874, 373.
Mesogobius Bleeker, 1874, 373.
Stenogobius Bleeker, 1874, 373.
Hemigobius Bleeker, 1874, 373.
Oligolepis Bleeker, 1874, 373.
Gnatholepis Bleeker, 1874, 373.
Hypogymnogobius Bleeker, 1874, 373.
Actinogobius Bleeker, 1874, 373.
Cephalogobius Bleeker, 1874, 373.
Centrogobius Bleeker, 1874, 373.
Acentrogobius Bleeker, 1874, 373.
Porogobius Bleeker, 1874, 373.
Pseudogobiodon Bleeker, 1874, 373.
Oxymetopon Bleeker, 1874, 373.
Paragobiodon Bleeker, 1874, 373.
Amblygobius Bleeker, 1874, 373.
Zonogobius Bleeker, 1874, 374.
Odontogobius Bleeker, 1874, 374.
Stigmatogobius Bleeker, 1874, 374.
Amblychæturichthys Bleeker, 1874, 374.
Parachæturichthys Bleeker, 1874, 374.
Apocryptodon Bleeker, 1874, 374.
Parapocryptes Bleeker, 1874, 374.
Gobileptes (Swainson) Bleeker, 1874, 374.
Pseudapocryptes Bleeker, 1874, 374.
Orthostomus Kner, 1874, 373.
Gobiopus Gill, 1874, 375.
Microgobius Poey, 1875, 379.
Latrunculodes Collett, 1875, 379.
Leptogobius Bleeker, 1875, 377.
Apocryptichthys Day, 1876, 385.
Paroxyurichthys Bleeker, 1876, 384.
Lebetus Winther, 1877, 392.
Perccottus Dybowski, 1877, 389.
Bathygobius⁴⁶⁹ Bleeker, 1878, 393.
Typhlogobius Steindachner, 1880, 406.
Leucopsarion Hilgendorf, 1880, 403.
Othonops Rosa Smith (Eigenmann), 1881, 417.
Saccostoma Sauvage, 1882, 421.
Leme De Vis, 1884, 427.
Clevelandia Eigenmann & Eigenmann, 1888, 440.
Barbulifer E. & E., 1888, 440.

⁴⁶⁹ An unfortunate name for a very common shallow-water form.

- Bollmannia Jordan, 1889, 447.
 Chrolepis Gilbert, 1891, 455.
 Salarigobius Pfeffer, 1893, 462.
 Garmannia Jordan, 1895, 576.
 Quietula Jordan & Evermann, 1895, 469.
 Aboma Jordan & Starks, 1895, 468.
 Evermannia Jordan, 1895, 468.
 Stiphodon⁴⁷⁰ Weber, 1895, 470.
 Sicya Jordan & Evermann, 1896, 474.
 Zalypnus J. & E., 1896, 474.
 Lythrypnus J. & E., 1896, 474.
 Ilypnus J. & E., 1896, 474.
 Sicyosus J. & E., 1898, 482.
 Enypnias J. & E., 1898, 481.
 Trichopharynx Ogilby, 1898, 483.
 Austrogobio Ogilby, 1898, 483.
 Oreogobius Boulenger, 1899, 485.
 Mapo Smitt, 1899, 487.
 Lebistes Smitt, 1899, 487.
 Caffrogobius Smitt, 1899, 487.
 Mugilogobius Smitt, 1899, 487.
 Proterorhinus Smitt, 1899, 487.
 Eichwaldia Smitt, 1899, 487.
 Trifissus Jordan & Snyder, 1900, 490.
 Chasmias J. & S., 1901, 494.
 Eutæniichthys J. & S., 1901, 494.
 Clariger J. & S., 1901, 494.
 Astrabe J. & S., 1901, 494.
 Ainosus J. & S., 1901, 494.
 Sagamia J. & S., 1901, 494.
 Suruga J. & S., 1901, 494.
 Chloëa J. & S., 1901, 494.
 Hazeus J. & S., 1901, 494.
 Chasmichthys J. & S., 1901, 494, 504.
 Mistichthys H. M. Smith, 1902, 500.
 Chlamydes Jenkins, 1903, 504.
 Vitraria Jordan & Evermann, 1903, 504.
 Quisquilius J. & E., 1903, 504.
 Elacatinus Jordan, 1904, 508.
 Pycnomma Rutter, 1904, 511.
 Allogobius Waite, 1904, 511.
 Gigantogobius Fowler, 1905, 513.
 Kelloggella Jordan & Seale, 1905, 514, 519.
 Drombus J. & S., 1905, 514.
 Waitea J. & S., 1906, 519.
 Pselaphias J. & S., 1906, 519.
 Exyrias J. & S., 1906, 519.
 Mars J. & S., 1906, 519.
 Vailima J. & S., 1906, 519.
 Vaimosa J. & S., 1906, 519.
 Vitreola J. & S., 1906, 519.
 Trimma J. & S., 1906, 519.
 Caragobius Smith & Seale, 1906, 520.
 Illana S. & S., 1906, 520. *
 Ranulina Jordan & Starks, 1906, 519.
 Creisson Jordan & Seale, 1907, 525.
 Xenisthmus Snyder, 1908, 531.
 Doryptena Snyder, 1908, 531.
 Aparrius Jordan & Richardson, 1908, 528.
 Macgregorella Seale, 1909, 533.
 Biat Seale, 1909, 533.
 Expedio Snyder, 1909, 534.
 Inu Snyder, 1909, 534.
 Nematogobius Boulenger, 1910, 534.
 Mucogobius McCulloch, 1912, 544.
 Schismatogobius Beaufort, 1912, 542.
 Pleurosicya Weber, 1913, 551.
 Lubricogobius Tanaka, 1915, 558.
 Evermannichthys⁴⁷¹ Metzelaar, 1920.
 Xenogobius⁴⁷² Metzelaar, 1920.
 Micropercops⁴⁷³ Fowler & Gee, 1920.
 Ulcigobius⁴⁷⁴ Fowler, 1920.
 Arolepis⁴⁷⁵ Hubbs, 1921.
 Radcliffella⁴⁷⁶ Hubbs, 1921.

⁴⁷⁰ The reference on page 542 in "Genera of Fishes" should be canceled.

⁴⁷¹ *Over Tropisch Atlantisch Visschen*, 139; type *Evermannichthys spongicola* Metzelaar.

⁴⁷² *Op. cit.*, 140; type *Xenogobius weberi* Metzelaar.

⁴⁷³ *Proc. U. S. Nat. Mus.*, 58: 318; type *Micropercops dabryi* Fowler & Bean.

⁴⁷⁴ *Proc. Acad. Nat. Sci. Phila.*, 1918, 69; type *Drombus maculipinnis* Fowler.

⁴⁷⁵ *Occ. Papers Univ. Michigan*, 99: 1; orthotype *Arolepis barbara* Hubbs.

⁴⁷⁶ *Occ. Papers Univ. Mich.*, 99: 2; orthotype *Garmannia spongicola* Radcliffe.

Family 546. PERIOPHTHALMIDÆ

*Apocryptes*⁴⁷⁷ Osbeck, 1762, 17.*Periophthalmus* Bloch & Schneider, 1801, 58.*Scartelaos* Swainson, 1839, 202.*Apocryptes* (Osbeck) Cuvier & Valenciennes, 1837, 188.*Boleophthalmus* C. & V., 1837, 188.*Euchoristopus* Gill, 1863, 326.*Boleops* Gill, 1863, 326.*Periophthalmodon* Bleeker, 1874, 374.

⁴⁷⁷ A binomial name, but first issued in 1757, before the "Systema Naturæ" of Linnæus; reprinted in 1762. The name was revived by Cuvier & Valenciennes, its designated type being that of Osbeck, identical with *Bolcophthalmus*, described on a subsequent page of the "Histoire Naturelle des Poissons." The name *Apocryptes* was later transferred to a different group.

Family 547. GOBIOIDIDÆ

Gobioides Lacépède, 1800, 57.*Tænioides* Lacépède, 1800, 57.*Plecopodus* Rafinesque, 1815, 90.*Gymnurus* Rafinesque, 1815, 88.*Amblyopus* Cuvier & Valenciennes, 1837, 188.*Psilosomus* Swainson, 1839, 198.*Ognichodes* Swainson, 1839, 202.*Tyntlastes* Günther, 1862, 319.*Brachyamblyopus* Bleeker, 1874, 374.*Odontamblyopus* Bleeker, 1874, 374.*Cayennia* Sauvage, 1880, 405.*Paragobioides* Kendall & Goldsborough, 1911, 540.

Family 548. TRYPAUCHENIDÆ

*Trypauchen*⁴⁷⁸ Cuvier & Valenciennes, 1837.*Trypauchenichthys* Bleeker, 1860, 293, 374.*Ctenotrypauchen* Steindachner, 1867, 348.*Trypauchenopsis* Volz, 1903, 506.*Trypauchenophrys* Franz, 1910, 535.

⁴⁷⁸ "Histoire Naturelle des Poissons," XII, 162; type *Gobius vagina* Bloch & Schneider. (Omitted in "Genera of Fishes.")

Family 549. DOLIICHTHYIDÆ

Doliichthys Sauvage, 1874, 376.

Family 550. PSAMMICHTHYIDÆ

Psammichthys Regan, 1908, 530.

Order DISCOCEPHALI

Family 551. OPISTHOMYZONIDÆ

OPISTHOMYZON Cope, 1889, 445.

Family 552. ECHENEIDÆ

(Remoras; Shark-pilots)

Echeneis Linnæus, 1758, 12.*Remora* Forster, 1771, 28.*Remora* Catesby, 1771, 31.*Phtheichthys* Gill, 1862, 316.*Remilegia* Gill, 1862, 316.*Remora* Gill, 1862, 316.*Rhombochirus* Gill, 1863, 324.*Remoropsis* Gill, 1863, 324.*Leptecheneis* Gill, 1864, 330.*Remorina* Jordan & Evermann, 1896, 475.

Order JUGULARES

(Deripia)

Series TRACHINIFORMES

Family 553. TRACHINIDÆ

This group forms a natural sequence from *Trichodontidæ*, *Champsodontidæ*, etc.

Trachinus Linnæus, 1758, 12.**Echiichthys** Bleeker, 1862, 309.**Corystion** Rafinesque, 1810, 79.**PSEUDELEGINUS** Sauvage, 1873, 371.**Pseudotrachinus** Bleeker, 1862, 309.**TRACHINOPSIS** Sauvage, 1875, 380.

Family 554. CALLIPTERYGIDÆ

CALLIPTERYX Agassiz, 1838, 191.

Series NOTOTHENIIDIFORMES

Family 555. NOTOTHENIIDÆ

Eleginus Cuvier & Valenciennes, 1830, 135.**Phricus** Berg, 1895, 466.**Aphritis** Cuvier & Valenciennes, 1831, 137.**Dissostichus** Smitt, 1898, 483.**Notothenia** Richardson, 1844, 222.**Racovitzia** Dollo, 1900, 489.**Macronotothen** Gill, 1861, 306.**Artedidraco** Lönnberg, 1905, 515.**Eleginops** Gill, 1861, 306, 455.**Doloidraco** Roule, 1913, 551.**Pseudaphritis** Castelnau, 1872, 575.**Pogonophryne** Regan, 1914, 554.**Histiodraco** Regan, 1914, 555.

Family 556. BATHYDRACONIDÆ

Bathyraco Günther, 1878, 394.**Cygnodraco** Waite, 1916, 561.**Gerlachea** Dollo, 1900, 489.**Aconichthys** Waite, 1916, 561.**Prinodraco** Regan, 1914, 554.

Family 557. CHANNICHTHYIDÆ

Channichthys Richardson, 1844, 222.**Cryodraco** Dollo, 1900, 489.**Pagetodes** Richardson, 1844, 222.**Chænocephalus** Regan, 1913, 550.**Chænichthys** Richardson, 1844, 222.**Pagetopsis** Regan, 1913, 550.**Champscephalus** Gill, 1861, 306.**Chænodraco** Regan, 1914, 554.**Ponerodon** Alcock, 1890, 449.**Dacodraco** Waite, 1916, 561.

Family 558. BOVICTIDÆ

Bovictus⁴⁷⁹ Cuvier & Valenciennes, 1831, 137.**Cottoperca** Steindachner, 1875, 381.**Aurion** Waite, 1916, 561.⁴⁷⁹ Later corrected to *Bovichthys*.

Family 559. HARPAGIFERIDÆ

Harpagifer Richardson, 1844, 222.**Sclerocottus** Fischer (J. G.), 1885, 431.

Series CALLIONYMIFORMES

Family 560. **DRACONETTIDÆ**

Draconetta Jordan & Fowler, 1903, 505. **Centrodraco** Regan, 1913, 550.

Family 561-562. **CALLIONYMIDÆ**

(Dragonets)

Callionymus Linnæus, 1758, 12.

Synchiropus Gill, 1859, 290.

Dactylopus Gill, 1859, 290.

Vulsus Günther, 1861, 307.

Calliurichthys Jordan & Fowler, 1903, 505.

Draculo Snyder, 1911, 541.

Calymmichthys Jordan & Thompson, 1914, 553.

Series PERCOPHIDIFORMES

Family 563. **PERCOPHIDIDÆ**

Percophis Quoy & Gaimard, 1824, 118.

Family 564. **MUGILOIDIDÆ** (*Pinguipedidæ*)

Mugiloides Lacépède, 1803, 67.

Myxonum Rafinesque, 1815, 90.

Pinguipes Cuvier, 1829, 127.

Pseudopercis Ribeiro, 1903, 506.

Family 565. **PARAPERCIDÆ**

Percis Bloch & Schneider, 1801, 58.

Parapercis Bleeker, 1863, 322.

Parapercis Steindachner, 1884, 430.

Neopercis Steindachner, 1885, 434.

Bathypercis Alcock, 1893, 460.

Macrias Gill & Townsend, 1901, 493.

Pleuragramma Boulenger, 1902, 496.

Osurus Jordan & Evermann, 1903, 506.

Chilias Ogilby, 1910, 536.

Family 566. **PTEROPSARIDÆ** (*Bembropidæ*)

Bembrops Steindachner, 1876, 387.

Hypsicometes Goode, 1880, 403.

Bathypercis Alcock, 1880, 403.

Chrionema Gilbert, 1905, 513.

Acanthaphritis Günther, 1880, 403.

Pteropsaron⁴⁸⁰ Jordan & Snyder, 1902, 499.

Osopsaron Jordan & Starks, 1904, 509.

⁴⁸⁰ A synonym of *Acanthaphritis* according to Regan, but the two genera differ in several respects.

Family 567. **HEMEROCÆTIDÆ**

Hemerocoetes Cuvier & Valenciennes, 1837, 189.

Family 568. **CHIMARRHICHTHYIDÆ**

Chimarrichthys Haast, 1874, 375.

Family 569. **CREEDIIDÆ**

Creedia Ogilby, 1898, 483.

Family 570. **LIMNICHTHYIDÆ**

Limnichthys Waite, 1904, 511.

Schizochirus Waite, 1904, 511.

Family 571. **TRICHONOTIDÆ**

- Trichonotus* Bloch & Schneider, 1801, 58. *Lesueurina* Fowler, 1907, 523.
Tæniolabrus Steindachner, 1867, 348. *Squamiceedia*⁴⁸¹ Rendahl, 1921.
Kræmeria Steindachner, 1906, 521.

⁴⁸¹ "Results of Dr. E. Mjöberg's Swedish Scientific Expeditions to Australia, 1910-13," XVIII; Hjalmar Rendahl, "Fische," 20, 1921; orthotype *Squamiceedia obtusa* Rendahl.

Family 572. **OXUDERCIDÆ**

- Oxuderces* Valenciennes, 1842, 213.

Series **AMMODYTIFORMES**Family 573. **AMMODYTIDÆ**

(Sand-lances)

- Ammodytes* Linnæus, 1758, 12. *Hyperoplus* Günther, 1862, 318.
Argyrotænia Gill, 1861.

Family 574. **BLEEKERIIDÆ**

- Bleekeria* Günther, 1862, 318. *Embolichthys* Jordan, 1903, 504.
Rhynchias Gill, 1898, 482.

Family 575. **HYPOPTYCHIDÆ**

- Hypoptychus* Steindachner, 1880, 406.

Series **BATHYMASTERIFORMES**Family 576. **BATHYMASTERIDÆ**

(Ronquils)

- Bathymaster* Cope, 1873, 368. *Rathbunella* Jordan & Evermann, 1896,
Ronquilus Jordan & Starks, 1895, 469. 474.

Family 577. **ZAPRORIDÆ**

A group of uncertain relationships, having no ventral fins; the skeleton not studied. It may belong near *Bathymaster*, but it is perhaps an ally of *Centrolophus*, possibly of *Cryptacanthodes*.

- Zaprora* Jordan, 1896, 472. *ARÆOSTEUS* Jordan & Gilbert, 1920, 571.

Series **URANOSCOPIIFORMES**Family 578. **CHIASMODONTIDÆ**

(Black Swallowers)

- Chiasmodon*⁴⁸² Johnson, 1863, 327. *Dysalotus* McGilchrist, 1905, 515.
Pseudoseopelus Lütken, 1892, 458. *Odontonema* Weber, 1913, 551.

⁴⁸² Spelled *Chiasmodus* by Günther.

Family 579. **OPISTHOGNATHIDÆ**

(Jaw Fishes)

- Opisthognathus* (Cuvier) Oken, 1817, *Lonchopisthus* Gill, 1862, 316.
101. *Stalix* Jordan & Snyder, 1902, 499.
Gnathypops Gill, 1862, 316. *Merogymnus* Ogilby, 1908, 529.

Family 580. **OWSTONIIDÆ***Owstonia* Tanaka, 1908, 531.Family 581. **CHAMPSODONTIDÆ***Champsodon* Günther, 1867, 345.*Centropercis* Ogilby, 1895, 469.Family 582. **URANOSCOPIDÆ**

(Star-gazers)

Uranoscopus Linnæus, 1758, 12.*Genyagnus* Gill, 1861, 305.*Ichthyscopus* Swainson, 1839, 202.*Gnathagnus* Gill, 1861, 305.*Astrosopus* Brevoort, 1860, 295.*Synnema* Haast, 1873, 369.*Kathetostoma*⁴⁸³ Günther, 1860, 296.*Arisopus* Jordan & Snyder, 1902, 499.*Agnus* Günther, 1860, 296.*Execestides* Jordan & Thompson, 1905, 514.*Upsilonphorus* Gill, 1861, 305.*Nematagnus* Gill, 1861, 305.⁴⁸³ Later written *Cathetostoma*.Family 583. **LEPTOSCOPIDÆ***Leptoscopus* Gill, 1859, 290.*Crapatalus* Günther, 1861, 308.Family 584. **DACTYLOSCOPIDÆ***Dactyloscopus* Gill, 1859, 290.*Gillellus* Gilbert, 1890, 451.*Crapatalus* Günther, 1861, 208.*Esloscopus* Jordan & Evermann, 1896, 474.*Myxodagnus* Gill, 1861, 305.*Dactylagnus* Gill, 1862, 318.•Series **BLENNIIFORMES**Family 585. **CLINIDÆ***Clinus* Cuvier, 1817, 101.*Entomacrodus* Gill, 1859, 291.*Tripterygion*⁴⁸⁴ Risso, 1826, 119.*Malacoctenus* Gill, 1860, 295.*Myxodes* Cuvier, 1829, 129.*Gobioclinus* Gill, 1860, 295.*Cirrhibarbus* Cuvier, 1829, 129.*Blennioclinus* Gill, 1860, 295.*Enneapterygius* Rüppell, 1835, 184.*Auchenionchus* Gill, 1860, 296.*Cristiceps* Cuvier & Valenciennes, 1836, 185.*Calliclinus* Gill, 1860, 296.*PTERYGOCEPHALUS* Agassiz, 1839, 194.*Ophthalmolophus* Gill, 1860, 296.*Clinitrachus* Swainson, 1839, 197.*Auchenopterus* Günther, 1861, 307.*Blennophis* Swainson, 1839, 202.*Cremnobates* Günther, 1861, 308.*Labrisomus* Swainson, 1839, 202.*Gibbonsia* Cooper, 1863, 323.*Ophisomus* Swainson, 1839, 202.*Lepidoblennius* Steindachner, 1867, 348.*Lepisoma* Dekay, 1842, 210.*Lepidoblennius* Sauvage, 1874, 376.*Heterostichus* Girard, 1854, 258.*Blakea* Steindachner, 1876, 387.*Neoclinus*⁴⁸⁵ Girard, 1858.*Acanthoclinus* Mocquard, 1885, 433.*Pterognathus* Girard, 1859, 290.*Petraites* Ogilby, 1885, 434.*Paraclinus* Mocquard, 1888, 443.⁴⁸⁴ Also corrected to *Tripterygium*.⁴⁸⁵ Girard, *U. S. Pac. R. R. Surv.*, 10: 114; orthotype *Neoclinus blanchardi* Girard. (Omitted in "Genera of Fishes.")

- Dialommus** Gilbert, 1890, 451.
Cryptotrema Gilbert, 1890, 451.
Cologrammus Gill, 1893, 461.
Notoclinus Gill, 1893, 461.
Ericentrus Gill, 1893, 461.
Scleropteryx De Vis, 1894, 465.
Enneanectes Jordan & Gilbert, 1895, 468.
Exerpes Jordan & Evermann, 1896, 472.
Mnierpes J. & E., 1896, 474.
Starksia Jordan & Evermann, 1896, 472.
Emmnion Jordan, 1897, 477.
Pterognathus (Girard) Jordan & Evermann, 1898, 481.
Corallicola Jordan & Evermann, 1898, 481.
Gillias Evermann & Marsh, 1899, 485.
Auchenistius Evermann & Marsh, 1899, 485.
Coralliozetus E. & M., 1899, 485.
Zacalles Jordan & Snyder, 1902, 499.
Ericteis Jordan, 1904, 508.
Acteis Jordan, 1904, 508.
Sauvagea Jordan & Seale, 1906, 519.
Congrammus Fowler, 1906, 517.
Calliblennius Barbour, 1912, 541.
Helcogramma McCulloch & Waite, 1918, 564.
Trianectes M. & W., 1918, 564.
Histioclinus⁴⁸⁶ Metzelaar, 1921.
Tekla Nichols, 1922. (See Index.)

⁴⁸⁶ *Trop. Atl. Visch.*, 157; orthotype *Histioclinus veliger* Metzelaar.

Family 586. NOTOGRAPTIDÆ

- Notograptus** Günther, 1867, 345. **Blanchardia** Castelnau, 1875, 378.
Sticharium Günther, 1867, 345.

Family 587. PERONEDYIDÆ

Body eel-shaped, without pectoral fins, scales rudimentary; three lateral lines; dorsal mostly of spines.

- Peronedys** Steindachner, 1884, 430. **Eucentronotus** Ogilby, 1898, 483.

Family 588. OPHIOCLINIDÆ

A group of slender, eel-shaped blennies, with rudimentary scales, the fin rays mainly spinous, here provisionally associated, their actual relationship undetermined.

- Ophioclinus** Castelnau, 1872, 363. **Neogunellus** Castelnau, 1875, 378.
Neoblennius Castelnau, 1875, 378. **Stenophus** Castelnau, 1875, 378.

Family 589. BLENNIIDÆ

- Blennius** Linnæus, 1758, 12. **Blennechis** Cuv. & Val., 1836, 185.
Salarias Forskål, 1775, 33. **Omobranchus** (Ehrenberg) Cuv. & Val., 1836, 185.
Blennius Klein, 1779, 44.
Alticus (Commerson) Lacépède, 1800, 69.
Salarias Cuvier, 1817, 101.
Pholis Cuvier, 1817, 101.
Petroscirtes Rüppell, 1828, 173.
Aspidontus Quoy & Gaimard, 1834, 180.
Ichthyocoris Bonaparte, 1836, 142, 206.
Chasmodes Cuvier & Valenciennes, 1836, 185.
*Alticus*⁴⁸⁷ (Commerson) Cuv. & Val., 1836.
Blennitrachus Swainson, 1839, 198.
Rupiscartes Swainson, 1839, 202.
Erpichthys Swainson, 1839, 202.
Cirripectes Swainson, 1839, 202.
Blennophis⁴⁸⁸ Valenciennes, 1844.
Adonis Gronow, 1854, 258.
Entomacrodus Gill, 1859, 289.
Ophioblennius Gill, 1860, 296.
Hypleurochilus Gill, 1861, 302.

⁴⁸⁷ "Histoire Naturelle Poissons," XI, 337; the name mentioned but not accepted.

⁴⁸⁸ Orthotype *Blennophis webbi* Valenciennes; preoccupied; replaced by *Ophioblennius* Gill.

Hypsoblennius Gill, 1861, 302.
*Salarichthys*⁴⁸⁹ Guichenot, 1867, 346.
Enchelyurus Peters, 1868, 353.
Alticus (Commerson) Bleeker, 1869, 353.
Isesthes Jordan & Gilbert, 1882, 420.
Scartella Jordan, 1886, 435.
Lipophrys Gill, 1896, 471.
Scartes Jordan & Evermann, 1896, 475.
Macrurrhynchus Ogilby, 1896, 475.
Homesthes Gilbert, 1898, 481.

Blenniulus Jordan & Evermann, 1898, 481.
Scartichthys Jordan & Evermann, 1898, 481.
ONCOLEPIS Bassani, 1898, 478.
Brannerella Gilbert, 1900, 489.
Graviceps Fowler, 1903, 502.
Exallias Jordan & Evermann, 1905, 514.
Cyneichthys Ogilby, 1910, 536.
Parablennius Ribeiro, 1915, 557.

⁴⁸⁹ Written also *Salarichthys*.

Family 590. EMBLEMARIIDÆ

This family and the three which follow are entirely provisional, designed to receive aberrant genera which by differences in dentition confuse the definition of *Blenniidae*.

Emblemaria Jordan & Gilbert, 1882, 420. *Acanthemblemaria*⁴⁹⁰ Metzelaar, 1920.

⁴⁹⁰ "Trop. Atl. Visschen," 159; orthotype *A. spinosa* Metzelaar.

Family 591. RUNULIDÆ

A group of naked blennies with the mouth small, transverse, and inferior, the members perhaps not related one to another.

Andamia Blyth, 1859, 291. *Runula* Jordan & Bollman, 1889, 447.
Heteroclinus Castelnau, 1872, 363. *Runulops* Ogilby, 1910, 536.

Family 592. ATOPOCLINIDÆ

Teeth solid, trenchant.

Atopoclinus Vaillant, 1894, 466.

Family 593. CHÆNOPSIDÆ

A provisional group of elongate, naked blennies of the tropics, perhaps unrelated among themselves, and resembling on one hand the *Pholidæ* and on the other the *Clinidæ*.

Pholidichthys Bleeker, 1856, 267. *Pseudoblennius* Jenkins & Evermann, 1888, 442.
Gunnellichthys Bleeker, 1858, 277. *Lucioblennius* Gilbert, 1890, 451.
Chænopsis Gill, 1863, 323.
Stathmonotus Bean, 1885, 430.

Family 594. CEBIDICHTHYIDÆ

The three genera here associated differ from the allied *Pholidæ* in having the posterior half of the dorsal fin of soft rays.

*Cebidichthys*⁴⁹¹ Ayres, 1855, 262. *Zoarchias* Jordan & Snyder, 1902, 499.
Neozoarces Steindachner, 1880, 406.

⁴⁹¹ Often misspelled *Cebedichthys*.

Family 595. PHOLIDÆ

A varied group of subarctic blennies which may require further subdivision.

Pholis Gronow, 1763, 19.

Pholis (Gronow) Scopoli, 1777, 42.

Pholis Röse, 1793, 52.

Pholidus Rafinesque, 1815, 88.

Murænoides Lacépède, 1800, 56.

Centronotus Bloch & Schneider, 1801, 58.

Dactyleptus Rafinesque, 1815, 88.

Gunnellus Cuvier & Valenciennes, 1836, 185.

Ophisomus Swainson, 1839, 202.

Chirolophis Swainson, 1839, 202.

Carelophus Kröyer, 1845, 226.

Dictyosoma Temminck & Schlegel, 1845, 227.

Apodichthys Girard, 1854, 258.

Blenniops Nilsson, 1855, 266.

Anoplarchus Gill, 1861, 305.

Asternopteryx (Rüppell) Günther, 1861, 307.

Urocentrus Kner, 1868, 352.

Opisthocentrus Kner, 1868, 352.

Gunnellops Bleeker, 1874, 372.

Plectobranchnus Gilbert, 1890, 451.

Blenniophidium Boulenger, 1892, 457.

Plagiogrammus Bean, 1893, 460.

Xerperes Jordan & Gilbert, 1895, 469.

Bryostemma Jordan & Starks, 1895, 469.

Rhodymenichthys Jordan & Evermann, 1896, 475.

Ulvicola Gilbert & Starks, 1897, 477.

Alectrias Jordan & Evermann, 1898, 482.

Pholidapus Bean & Bean, 1896, 471.

Enedrias Jordan & Evermann, 1898, 481.

Eulophias Smith, 1902, 500.

Azuma Jordan & Snyder, 1902, 499.

Bryolophus J. & S., 1902, 499.

Abryois J. & S., 1902, 499.

Trigrammus Gracianov, 1907, 524.

Askoldia Pavlenko, 1910, 537.

Gymnoclinus Gilbert & Burke, 1912, 543.

Alectridium Gilbert & Burke, 1912, 543.

Family 596. XIPHISTERIDÆ (*Xiphidiontidae*)

*Xiphidion*⁴⁹² Girard, 1857, 290.

Xiphister Jordan, 1879, 400.

Xiphistes Jordan & Starks, 1895, 469.

*Phytichthys*⁴⁹³ Hubbs, 1923.

⁴⁹² Preoccupied by *Xiphidion* Seville, a genus of *Orthoptera*, the word later corrected to *Xiphidium*. *Xiphidion* was first used by Girard, *U. S. Pac. R. R. Surv.*, 6: 20, 1857.

⁴⁹³ Hubbs, ms.: new genus; orthotype *Xiphister chirus* Jordan & Gilbert; substitute for *Xiphistes*, preoccupied in insects.

Family 597. STICHÆIDÆ

*Stichæus*⁴⁹⁴ Reinhardt, 1837.

Eumesogrammus Gill, 1864, 331.

Stichæopsis Steindachner & Kner, 1870, 360.

*Notogrammus*⁴⁹⁵ Bean, 1881.

Dinogunnellus Herzenstein, 1890, 451.

Ulvarius Jordan & Evermann, 1896, 475.

Ernogrammus J. & E., 1898, 481.

Ozorthes J. & E., 1898, 481.

Trigrammus Gracianov, 1907, 524.

⁴⁹⁴ *Dansk. Vid. Nat. Afh.*, 109; orthotype *Stichæ punctatus* Reinhardt. (Omitted in "Genera of Fishes.")

⁴⁹⁵ Bean, *Proc. U. S. Nat. Mus.*, 4: 147; orthotype *N. rothrocki* Bean. A synonym of *Stichæus*. (Omitted in "Genera of Fishes.")

Family 598. **LUMPENIDÆ**

- | | |
|---|--|
| Lumpenus ⁴⁹⁶ Reinhardt, 1837. | Leptoclinus Gill, 1861, 302. |
| Ctenodon Nilsson, 1855, 266. | Centroblennius Gill, 1861, 302. |
| Leptogunnellus Ayres, 1855, 262. | Anisarchus Gill, 1864, 331. |
| Leptoblennius Gill, 1860, 295. | Poroclinus Bean, 1890, 450. |

⁴⁹⁶ *Dansk. Vid. Selsk. Nat.*, 6: 110; orthotype *Blennius lumpenus* Fabricius, not of Linnæus. (Omitted in "Genera of Fishes.")

Family 599. **PTILICHTHYIDÆ**

Ptilichthys Bean, 1881, 415.

Family 600. **CRYPTACANTHODIDÆ**

- | | |
|---|---------------------------------------|
| Cryptacanthodes Storer, 1839, 197. | Lyconectes Gilbert, 1895, 467. |
| Delolepis Bean, 1881, 415. | |

Family 601. **ANARRHICHADIDÆ**

- | | |
|--|---|
| Anarchichas ⁴⁹⁷ Linnæus, 1758, 12. | Lycichthys Gill, 1877, 389. |
| Lathargus ⁴⁹⁸ Klein, 1775, 38. | LAPARUS (Agassiz) Woodward, (1845) |
| PALANARRHICHAS LeHon, 1871, 361. | 1901, 224. |

⁴⁹⁷ Often spelled *Anarrhichas*.

⁴⁹⁸ Misprinted *Lathargus*.

Family 602. **ANARRHICHTHYIDÆ**

Anarrhichthys Ayres, 1855, 262.

Family 603. **XIPHASIIDÆ**

- | | |
|---|---------------------------------------|
| Xiphasia ⁴⁹⁹ Swainson, 1839, 201. | Xiphogadus Günther, 1862, 318. |
| Nemophis Kaup, 1858, 281. | Plagiotremus Gill, 1863, 323. |

⁴⁹⁹ Also spelled *Ziphasia* by Swainson.

Family 604. **XENOCEPHALIDÆ**

Xenocephalus Kaup, 1858, 281.

*Series ZOARCIFORMES*Family 605. **CONGROGADIDÆ**

- | | |
|---|--|
| Haliophis Rüppell, 1828, 122. | Halidesmus Günther, 1871, 361. |
| Machærium Richardson, 1843, 216. | Blennodesmus Günther, 1871, 361. |
| Congrogadus Günther, 1862, 318. | Hierichthys Jordan & Fowler, 1902, 499. |

Family 606. **CERDALIDÆ** (*Microdesmidæ*)

- | | |
|---|--|
| Microdesmus Günther, 1864, 333. | Leptocerdale Weymouth, 1910, 537. |
| Cerdale Jordan & Gilbert, 1881, 416. | |

Family 607. **SCYTALINIDÆ**

- | | |
|---|---|
| Scytalina Jordan & Gilbert, 1880, 404. | Scytaliscus Jordan & Gilbert, 1883, 424. |
|---|---|

Family 608. **ZOARCIDÆ** (*Lycodidæ*)

Enchelyopus Gronow, 1763, 19.
Zoarces⁶⁰⁰ Cuvier, 1829, 129.
Lycodes Reinhardt, 1838, 193.
Gymnelis Reinhardt, 1838, 193.
Phycocætes Jenyns, 1842, 212.
Iluocætes Jenyns, 1842, 212.
Uronectes Günther, 1862, 318.
Macrozoarces Gill, 1863, 325.
Maynea Cunningham, 1871, 361.
Paralycodes Bleeker, 1874, 372.
Lycodalepis Bleeker, 1874, 372.
Lycodopsis Collett, 1879, 399.
Leurynnis Lockington, 1879, 400.
Hypolycodes Hector, 1880, 403.
Melanostigma Günther, 1881, 416.
Bassozetus Gill, 1883, 424.
Lycocara Gill, 1884, 428.
Lycenchelys Gill, 1884, 428.
Gymnelichthys Fischer, 1885, 431.
Lycodophis Vaillant, 1888, 444.
Lyconema Gilbert, 1895, 467.

Nemalycodes Herzenstein, 1896, 472.
Furcella Jordan & Evermann, 1896, 475.
Aprodon Gilbert, 1890, 451.
Platea Steindachner, 1898, 484.
Lycias Jordan & Evermann, 1898, 481.
Embryx J. & E., 1898, 481.
Furcimanus J. & E., 1898, 482.
Selachophidium Gilchrist, 1903, 503.
Petrotyx Heller & Snodgrass, 1903, 503.
Eutyx Heller & Snodgrass, 1903, 503.
Krusensterniella Schmidt, 1904, 511.
Hadropareia Schmidt, 1904, 511.
Pachycara Zugmayer, 1911, 541.
Mastigopterus Radcliffe, 1913, 549.
Ophthalmolycus Regan, 1913, 550.
Austrolycus Regan, 1913, 550.
Austrolycichthys Regan, 1913, 550.
Crossolycus Regan, 1913, 550.
Zoarcites Zugmeyer, 1914, 555.
Lycogramma Gilbert, 1915, 556.

⁶⁰⁰ Also spelled *Zoarchus*.

Family 609. **LYCODAPODIDÆ**

Lycodapus Gilbert, 1890, 451.

Snyderidia Gilbert, 1905, 513.

Family 610. **DEREPODICHTHYIDÆ**

Derepodichthys Gilbert, 1895, 467.

Series **BROTULIFORMES**Family 611. **BROTULIDÆ**

*Brotula*⁶⁰¹ Cuvier, 1829.
Bythites Reinhardt, 1837, 190.
*Tilurus*⁶⁰² Kolliker, 1854, 254.
Dinematichthys Bleeker, 1855, 263.
Gadopsis Filippi, 1855, 265.
Brotulophis Kaup, 1858, 281.
Brotella Kaup, 1858, 281.
Hoplophycis Kaup, 1858, 281.
Sirembo Bleeker, 1858, 277.
Halias Ayres, 1859, 293.
Lucifuga Poey, 1860, 298.
Brosomphycis Gill, 1861, 305.

Nematobrotula Gill, 1863, 325.
Stygicola Gill, 1863, 325.
Hoplobrotula Gill, 1863, 325.
Acanthonus Günther, 1878, 394.
Bathynectes Günther, 1878, 394.
Aphyonus Günther, 1878, 394.
Typhlonus Günther, 1878, 394.
Dicrolene Goode & Bean, 1882, 419.
Lycodonus Goode & Bean, 1882, 419.
Poromitra Goode & Bean, 1882, 419.
Barathrodemus Goode & Bean, 1882, 419.

⁶⁰¹ *Régne Animal*; type *Enchelyopus barbatus* Bloch and Schneider. (Omitted in "Genera of Fishes.")

⁶⁰² This genus and its allies, *Tilurella*, *Tiluropis*, and *Grimaldichthys*, are larval forms, supposed to be of brotulids.

- Bellottia* Giglioli, 1883, 423.
Porogadus Goode & Bean, 1885, 432.
Bathyonus Goode & Bean, 1885, 432.
Neobythites Goode & Bean, 1885, 432.
Barathronus Goode & Bean, 1886, 435.
Myxocephalus Steindachner & Döderlein, 1887, 439.
Catætyx Günther, 1887, 437.
Pteroidonus Günther, 1887, 437.
Mixonus Günther, 1887, 437.
Diplacanthopoma Günther, 1887, 437.
Nematonus Günther, 1887, 437.
Alexeterion Vaillant, 1888, 444.
Pycnocraspedum Alcock, 1889, 444.
Paradicrolene Alcock, 1889, 444.
Saccogaster Alcock, 1889, 444.
Glyptophidium Alcock, 1889, 444.
Dermatorus Alcock, 1890, 449.
Monomitopus Alcock, 1890, 449.
Paradicrolene Alcock, 1890, 449.
Bothrocara Bean, 1890, 450.
Lamprogrammus Alcock, 1891, 454.
Hephthocara Alcock, 1892, 457.
Benthocometes Goode & Bean, 1895, 468.
Dicromita G. & B., 1895, 468.
Celema G. & B., 1895, 468.
Penopus G. & B., 1895, 468.
Mæbia G. & B., 1895, 468.
Alcockia G. & B., 1895, 468.
Dermatopsis Ogilby, 1896, 475.
Monothrix Ogilby, 1897, 477.
Ogilbia Jordan & Evermann, 1898, 480.
Diancistrus Ogilby, 1898, 483.
Holcomycteronus Garman, 1899, 486.
Pseudonus Garman, 1899, 486.
Leucicorus Garman, 1899, 486.
Sciadonus Garman, 1899, 486.
Eretmichthys Garman, 1899, 486.
Bothrocaropsis Garman, 1899, 486.
Watasea Jordan & Snyder, 1901, 494.
Dipulus Waite, 1905, 516.
Bassobythites Brauer, 1906, 517.
Barathrites Zumayer, 1911, 541.
*Leucochlamys*⁵⁰³ Zugmayer, 1911.
*Parabrotula*⁵⁰⁴ Zugmayer, 1911.
Tilurella Roule, 1911, 541.
Tiluropsis Roule, 1911, 541.
Xenobythites Radcliffe, 1913, 549.
Pyramodon Radcliffe, 1913, 549.
Hypopleuron Radcliffe, 1913, 549.
Mastigopterus Radcliffe, 1913, 549.
Homostolus Radcliffe, 1913, 549.
Enchelybrotula Radcliffe, 1913, 549.
Hypopleuron Radcliffe, 1913, 549.
Luciobrotula Radcliffe, 1913, 549.
Grimaldichthys Roule, 1913, 551.
Pyramodon Regan, 1914, 555.
Spectrunculus Jordan & Thompson, 1914, 553.
Cynophidium Regan, 1914, 554.

⁵⁰³ *Rés. Camp. Sci. Monaco*, 131; type *Leucochlamys cryptophthalmus* Zugmayer. (Omitted in "Genera of Fishes.")

⁵⁰⁴ *Loc. cit.*, 129; orthotype *Parabrotula plagiosphelmus* Zugmayer. (Omitted in "Genera of Fishes.")

Series OPHIDIIFORMES

Family 612. RHODICHTHYIDÆ

Rhodichthys Collett, 1878, 393.

Family 613. OPHIDIIDÆ

- Ophidion*⁵⁰⁵ Linnaeus, 1758, 12.
Xiphiurus Smith, 1849, 244.
Cepolophis Kaup, 1856, 272.
Genypterus Philippi, 1857, 276.
Leptophidium Gill, 1863, 324.
Otophidium Gill, 1885, 433.
Lepophidium Gill, 1895, 467.
Chilara Jordan & Evermann, 1896, 475.
Rissola J. & E., 1896, 475.
Pseudophidium Gracianov, 1907, 524.

⁵⁰⁵ Often spelled *Ophidium*.

Series CARAPIFORMES

Family 614. CARAPIDÆ (*Fierasferidæ*)
(Pearl Fishes)

- | | |
|---|---|
| <i>Carapus</i> ⁵⁰⁶ Rafinesque, 1810. | <i>Helminthodes</i> Gill, 1864, 331. |
| <i>Fierasfer</i> (Cuvier) Oken, 1817, 93, 101. | <i>Helminthostoma</i> Cocco, 1870, 357. |
| <i>Echiodon</i> Thompson, 1837, 190. | <i>Vexillifer</i> Gasco, 1870, 357. |
| <i>Encheliophis</i> Müller, 1843, 215. | <i>Lefroyia</i> Jones, 1874, 375. |
| <i>Diaphasia</i> Lowe, 1843, 215. | <i>Rhizoiketicus</i> Vaillant, 1893, 463. |
| <i>Oxybeles</i> Richardson, 1844, 223. | <i>Jordanicus</i> Gilbert, 1905, 513. |
| <i>Porobronchus</i> Kaup, 1860, 297. | |

⁵⁰⁶ A genus based on a definition borrowed from Lacépède and including two unrelated forms; one *Fierasfer*; one *Gymnotus*; no type named. By a decision of the International Commission of Zoological Nomenclature, *Carapus* is held to replace *Fierasfer*, as the species first referred to it by a subsequent author was *Ohpidium imberbe* Linnæus.

Suborder HAPLODOCI

Family 615. BATRACHOIDIDÆ

- | | |
|---|---|
| <i>Batrachoides</i> Lacépède, 1800, 57. | <i>Phrynotitan</i> Gill, 1885, 432. |
| <i>Batrachus</i> Bloch & Schneider, 1801, 57. | <i>Marcgravia</i> Jordan, 1886, 435. |
| <i>Batrictius</i> Rafinesque, 1815, 88. | <i>Thalassothia</i> Berg, 1895, 466. |
| <i>Opsanus</i> Rafinesque, 1818, 108. | <i>Dæctor</i> Jordan & Evermann, 1898, 481. |
| <i>Amphichthys</i> Swainson, 1839, 202. | <i>Coryzichthys</i> Ogilby, 1908, 529. |
| <i>Porichthys</i> Girard, 1854, 258. | <i>Halobatrachus</i> Ogilby, 1908, 529. |
| <i>Thalassophryne</i> Günther, 1861, 307. | <i>Batrachomœus</i> Ogilby, 1908, 529. |
| <i>Halophryne</i> Gill, 1863, 324. | <i>Marcgravichthys</i> Ribeiro, 1915, 557. |
| <i>Pseudobatrachus</i> Castelnau, 1875, 378. | <i>Nautopædium</i> Jordan, 1919, 567. |

Order XENOPTERYGII (*Xenopteri*)

Family 616. GOBIESOCIDÆ

- | | |
|--|---|
| <i>Lepadogaster</i> Gouan, 1770, 28. | <i>Leptopterygius</i> Troschel, 1860, 300. |
| <i>Gobiesox</i> Lacépède, 1800, 57. | <i>Crepidogaster</i> Günther, 1861, 307. |
| <i>Piescephalus</i> Rafinesque, 1810, 81. | <i>Diplocrepis</i> Günther, 1861, 307. |
| <i>Megaphalus</i> Rafinesque, 1815, 89. | <i>Caularchus</i> Gill, 1862, 317. |
| <i>Gouania</i> Nardo, 1832, 176. | <i>Mirbelia</i> Canestrini, 1864, 329. |
| <i>Rupisuga</i> Swainson, 1839, 206. | <i>Rimicola</i> Jordan & Evermann, 1896, 472. |
| <i>Cotylys</i> Müller, 1843, 215. | <i>Arbaciosa</i> J. & E., 1896, 472. |
| <i>Sicyases</i> Müller, 1843, 216. | <i>Bryssetæres</i> J. & E., 1896, 472. |
| <i>Trachelochismus</i> de Barneville, 1846, 228. | <i>Caulistius</i> J. & E., 1896, 475. |
| <i>Chorisochismus</i> de Barneville, 1846, 228. | <i>Bryssophilus</i> J. & E., 1898, 481. |
| <i>Sicyogaster</i> Brisout de Barneville, 1846, 228. | <i>Aspasma</i> Jordan & Fowler, 1902, 498. |
| <i>Tomicodon</i> Brisout de Barneville, 1846, 228. | <i>Lepadichthys</i> Waite, 1904, 511. |
| <i>Apepton</i> Gistel, 1848, 236. | <i>Aspasmagaster</i> Waite, 1907, 526. |
| | <i>BULBICEPS</i> Jordan, 1919, 568. |
| | <i>Cotylichthys</i> Jordan, 1919, 567. |

Order PLECTOGNATHI

Suborder SCLERODERMI

This group is closely related to the *Squamipinnes*, especially to the *Acanthuridæ*, from ancestors of which it must have been derived.

Family 617. SPINACANTHIDÆ

SPINACANTHUS Agassiz, 1844, 219.

PROTOBALISTUM (Massalongo) Zigno, 1887, 439.

Family 618. TRIACANTHIDÆ

Triacanthus (Cuvier) Oken, 1817, 98.

Hollandia Poey, 1861, 308.

ACANTHOPLEURUS Agassiz, 1844, 217.

Halimochirus Alcock, 1899, 484.

Triacanthodes Bleeker, 1858, 277.

Tydemania Weber, 1913, 551.

Family 619. BALISTIDÆ

Balistes Linnæus, 1758, 15.

*ANCISTRODON*⁵¹⁰ (Debey) Roemer, 1843.

Capriscus Klein, 1777, 43.

ACANTHODERMA Agassiz, 1844, 217.

Capriscus Röse, 1793, 52.

AGOREION Gistel, 1848, 237.

Capriscus Rafinesque, 1810, 82.

Odonus Gistel, 1848, 238.

Balistapus Tilesius, 1820, 113.

Erythrodon Rüppell, 1852, 251.

Xenodon Rüppell, 1835, 184.

Pyrodon Kaup, 1855, 265.

*Pachynathus*⁵⁰⁷ Swainson, 1839, 199.

Xanthichthys Kaup, 1856, 274.

*Zenodon*⁵⁰⁸ Swainson, 1839, 204.

Pseudobalistes Bleeker, 1866, 340.

Rhinecanthus Swainson, 1839, 204.

Parabalistes Bleeker, 1866, 340.

Chalisoma Swainson, 1839, 204.

ANKISTRODUS Koninck, 1870, 358.

Canthidermis Swainson, 1839, 204.

PROTACANTHODES Gill, 1888, 441.

*Melichthys*⁵⁰⁹ Swainson, 1839, 204.

*GRYPODON*⁵¹¹ Hay, 1899.

Capriscus Swainson, 1839, 204.

Abalistes Jordan & Seale, 1906, 519.

Leiurus Swainson, 1839, 205.

Sufflamen Jordan, 1916, 559.

⁵⁰⁷ Regarded by the International Commission as a misprint for *Pachygnathus*, a name already in use.

⁵⁰⁸ Perhaps a misprint for *Xenodon*.

⁵⁰⁹ Written later *Melanichthys*.

⁵¹⁰ "Texas," 420; orthotype *Ancistrodon texanus* Roemer. (Omitted in "Genera of Fishes.")

⁵¹¹ Substitute for *Ancistrodon*; preoccupied in snakes.

Family 620. MONACANTHIDÆ

Unicornis Catesby, 1771, 31.

Trichoderma Swainson, 1839, 205.

Monoceros (Plumier) Lacépède, 1800, 71.

Stephanolepis Gill, 1861, 304.

Monacanthus (Cuvier) Oken, 1817, 98.

Ceratacanthus Gill, 1861, 303.

*Alutera*⁵¹² (Cuvier) Oken, 1817, 98.

*Pseudaluteries*⁵¹² Bleeker, 1865, 336.

Amaneses Gray, 1833, 139, 179.

Pseudomonacanthus Bleeker, 1866, 340.

Cantherines Swainson, 1839, 205.

Acanthaluteres Bleeker, 1866, 340.

Chaetodermis Swainson, 1839, 205.

Brachaluteres Bleeker, 1866, 340.

⁵¹² Various written *Aleuteres*, *Alutarius*, *Aleisterius*, etc.

Pseudaluteres⁵¹² Bleeker, 1866, 340.
Paraluteres Bleeker, 1866, 340.
Oxymonacanthus Bleeker, 1866, 340.
Paramonacanthus Bleeker, 1866, 340.
Liomonacanthus Bleeker, 1866, 340.

Paramonacanthus Steindachner, 1867, 348.
Osbeckia Jordan & Evermann, 1896, 474.
Rudarius Jordan & Fowler, 1902, 498.
Davidia Ribeiro, 1915, 557.

⁵¹² Same as *Pseudalutarius*.

Family 621. **PSILOCEPHALIDÆ**

Anacanthus Gray, 1833.
Psilcephalus Swainson, 1839, 205.

Pogonognathus Bleeker, 1849, 240.

Suborder **OSTRACODERMI**

Family 622. **OSTRACIIDÆ**

Ostracion Linnæus, 1758, 15.
Acarana Gray, 1833, 139, 179, 192.
Lactophrys Swainson, 1839, 204.
Rhinesomus Swainson, 1839, 204.
Tetrosomus Swainson, 1839, 204.
Platycanthus Swainson, 1839, 204.
Anoplocapros Kaup, 1855, 265.
Kentrocapros Kaup, 1855, 265.

Cibotion (Klein) Kaup, 1855, 265.
Capropygia Gray, 1855, 265.
Acanthostracion Bleeker, 1866, 339.
Chapinus Jordan & Evermann, 1896, 474.
Lactoria Jordan & Fowler, 1902, 498.
Caprichthys McCulloch & Waite, 1915, 557.

Suborder **GYMNODONTES**

Family 623. **TRIODONTIDÆ**

Triodon Cuvier, 1829, 131.

Family 624. **TETRAODONTIDÆ** (*Chonerhinidæ*)

Tetraodon⁵¹⁴ Linnæus, 1758, 15.
Orbis Catesby, 1771, 31.
Crayracion Klein, 1777, 42.
Ovoides⁵¹⁵ Lacépède, 1798.
Sphæroides⁵¹⁶ Lacépède, 1798.
Ovoides Cuvier, 1800, 55.
Orbis (Plumier) Lacépède, 1800, 71.
Ovum Bloch & Schneider, 1801, 60.
Sphæroides (Lacépède) Duméril, 1806, 55, 75.
Ovoides (Lacépède) Duméril, 1806, 75.
Orbis Fischer, 1813, 85.
Oonidus Rafinesque, 1815, 91.
Orbidus Rafinesque, 1815, 91.

Physogaster Müller, 1839, 196.
Arothron Müller, 1839, 196.
Cheilichthys Müller, 1839, 196.
Chelonodon Müller, 1839, 196.
Leiodon Swainson, 1839, 198.
Lagocephalus Swainson, 1839, 205.
Cirrhisomus Swainson, 1839, 205.
Leisomus Swainson, 1839, 205.
Gastrophysus Müller, 1843, 216.
Anchisomus Kaub, 1854, 261.
Holacanthus Gronow, 1854, 258.
Chonerhinos⁵¹⁶ Bleeker, 1854, 256.
Dichotomycter Bibron, 1855, 263.
Epipedorhynchus Bibron, 1855, 263.

⁵¹⁴ Often written *Tetrodon*.

⁵¹⁵ In the *Allgemeine Literar Zeitung*, Berlin, No. 287, 1798, is an unsigned review of Lacépède's Volumes I and II, Latin names are supplied page 674 to "les Ovoides," and page 675 to "les Sphæroides." *Sphæroides* of this reviewer, 1798, replaces *Sphæroides* Duméril, 1806. For this reference I am indebted to Mr. Remington Kellogg.

⁵¹⁶ Usually corrected to *Chonerhinus*.

Geneion Bibron, 1855, 263.
Catophorhynchus Bibron, 1855, 263.
Batrachops Bibron, 1855, 263.
Monotreta⁶¹⁷ Bibron, 1855, 263.
Ehippion Bibron, 1855, 263.
Aphanacanthus Bibron, 1855, 263.
Xenopterus Bibron, 1855, 263.
Amblyrhynchotus Bibron, 1855, 263.
Stenometopus Bibron, 1855, 263.
Dilobomycter Bibron, 1855, 263.
Promecocophalus Bibron, 1855, 262.

Apsicephalus Hollard, 1857, 275.
Brachycephalus Hollard, 1857, 275.
Pleuranacanthus (Bibron) Bleeker, 1865, 336.
Uranostoma (Bibron) Bleeker, 1865, 336.
Crayracion (Klein) Bleeker, 1865, 339.
Hemiconiatus Günther, 1870, 357.
Liosaccus Günther, 1870, 357.
Guentheridia Gilbert & Starks, 1904, 508.

⁶¹⁷ Also spelled *Monotretus*.

Family 625. **CANTHIGASTERIDÆ** (*Tropidichthyidæ*)
 (Sharp-nosed Puffers)

Canthigaster Swainson, 1839, 198. **Rhynchotus** Bibron, 1855, 263.
Psilonotus Swainson, 1839, 205. **Anosmius** Peters, 1855, 266.
Prilonotus⁶¹⁸ (Kaup) Müller, 1854, 261. **Eumycterias** Jenkins, 1901, 493.
Tropidichthys Bleeker, 1854, 256.

⁶¹⁸ Perhaps a slip for *Psilonotus*.

Family 626. **DIODONTIDÆ**

Diodon Linnæus, 1758, 15. **Paradiodon** Bleeker, 1865, 336.
Orbis Müller (P. L. S.), 1767, 24. **Trichodiodon** Bleeker, 1866, 340.
Chilomycterus Bibron, 1846, 228. **Trichocyclus** Günther, 1870, 357.
MEGALURITES Costa, 1850, 245. **GYMNODUS** Delfortrie, 1871, 361.
ENNEODON Heckel, 1854, 259. **PROGYMNODON** Dames, 1883, 422.
Cyclichthys Kaup, 1855, 265. **Lyosphæra** Evermann & Kendall, 1898, 480.
Cyanichthys Kaup, 1855, 265. **Euchilomycterus** Waite, 1900, 491.
Dicotylichthys Kaup, 1855, 265. **Allomycterus**⁶¹⁹ McCulloch, 1921.
HEPTADIODON Bronn, 1855, 264.
Atopomycterus⁶¹⁹ (Verraux) Bleeker, 1865, 336.

⁶¹⁹ Orthotype *A. diversispinis* Verraux; incorrectly stated in "Genera of Fishes."

⁶²⁰ *Rec. Austr. Mus.*, 13: 141; orthotype *Diodon jaculiferus* Cuvier.

Family 627. **MOLIDÆ** (*Orthagoriscidæ*)

Mola Kœlreuter, 1770, 28. **Tympanomium** Ranzani, 1839, 196.
Mola Linck, 1790, 49. **Trematopsis** Ranzani, 1839, 196.
Mola Cuvier, 1798, 54. **Pallasia** Nardo, 1839, 196.
Orthagoriscus Bloch & Schneider, 1801, 60. **Ranzania** Nardo, 1839, 196.
Cephalus Shaw, 1804, 73. **Molacanthus** Swainson, 1839, 205.
Orthragus Rafinesque, 1810, 78. **Acanthosoma** Dekay, 1842, 210.
Diplanchias Rafinesque, 1810, 78. **Centaurus** Kaup, 1855, 265.
Pedalion Swainson, 1838, 193. **Masturus** Gill, 1884, 428.
Ozodura Ranzani, 1839, 196. **Chelonopsis**⁶²¹ Jordan, 1900.

⁶²¹ "Guide to the Study of Fishes," II, 425. This name, never intended as generic, is a printer's error for *Mola chelonopsis*, a fossil *Mola*.

Order PEDICULATI

Family 628. LOPHIIDÆ

Lophius Linnæus, 1758, 11.
Batrachus Klein, 1775, 40.
Lophidius Rafinesque, 1815, 92.
Lophiopsides Guichenot, 1867, 345.

Lophiomus Gill, 1882, 419.
Lophiodes Goode & Bean, 1895, 468.
Chirolophius Regan, 1903, 505.
Sladenia Regan, 1908, 530.

Family 629. ANTENNARIIDÆ

Antennarius (Commerson) Lacépède, 1798, 69.
*Histrio*⁵²² Fischer, 1813, 84.
Antennarius (Commerson) Cuvier, 1817, 104.
Chironectes Cuvier, 1817, 96.
*Batrachopus*⁵²³ Goldfuss, 1820, 114, 172.
Capellaria Gistel, 1848, 235.
Pterophryne Gill, 1863, 324.

Saccarius Günther, 1861, 307.
Histiophryne Gill, 1863, 324.
*Pterophrynoides*⁵²⁴ Gill, 1878.
Tetrabrachium Günther, 1880, 403.
HISTIOCEPHALUS Zigno, 1890, 453.
HISTIONOTOPTERUS Eastman, 1904, 507.
Trianectes McCulloch, 1918, 564.
Echinophryne McCulloch, 1918, 564.
Trichophryne McCulloch, 1918, 564.

⁵²² This name may be questioned on account of an error in the published diagnosis, which transposes the generic character of *Lophius* and *Histrio*.

⁵²³ Misprinted *Batrachops* on page 114.

⁵²⁴ *Proc. U. S. Nat. Mus.*, 1: 215; orthotype *Lophius histrio* Gill; a substitute for *Pterophryne*, regarded as preoccupied by *Pterophrynus*, a synonym of *Histrio* if the latter is eligible. (Omitted in "Genera of Fishes.")

Family 630. BRACHIONICHTHYIDÆ

Brachionichthys Bleeker, 1855, 263. *Sympterichthys* Gill, 1878, 394.

Family 631. CHAUNACIDÆ

Chaunax Lowe, 1846, 229.

Family 632. OGCOCEPHALIDÆ (*Oncocephalidæ*; *Malthidæ*)

*Ogcocephalus*⁵²⁵ Fischer, 1813, 85.
*Malthe*⁵²⁶ Cuvier, 1817, 105.
Haliutæa Cuvier & Valenciennes, 1837, 189.
Astrocanthus Swainson, 1839, 205.
Haliutichthys Poey, 1863, 324.
Dibranchus Peters, 1875, 379.
Haliutella Goode & Bean, 1885, 432.
Allector Heller & Snodgrass, 1903, 503.
Cælophrys Brauer, 1902, 497.
Brephostoma Alcock, 1889, 444.

Haliutopsis Garman, 1899, 486.
Dibranchichthys Garman, 1899, 486.
Dibranchopsis Garman, 1899, 486.
Halicmetus Alcock, 1891, 454.
Malthopsis Alcock, 1891, 454.
*Zalieutes*⁵²⁷ Jordan & Evermann, 1896.
Æschynichthys Ogilby, 1907, 526.
Tathicarpus Ogilby, 1907, 526.
Rhycherus Ogilby, 1907, 526.
Dermatias Radcliffe, 1912, 544.

⁵²⁵ Sometimes corrected to *Oncocephalus*.

⁵²⁶ Afterwards written *Malthæa*.

⁵²⁷ Jordan & Evermann, "Check List," 511; type *Malthe elater* Jordan & Gilbert. (Omitted in "Genera of Fishes.")

Family 633. **CERATIIDÆ****Ceratias** Kröyer, 1845, 227.**Mancalias** Gill, 1878, 394.**Typhlopsaras** Gill, 1883, 423.**Cryptopsaras** Gill, 1883, 423.**Miopsaras** Gilbert, 1905, 513.**Paraceratias** Tanaka, 1908, 531.**Neoceratias** Pappenheim, 1914, 554.**Monoceratias** Gilbert, 1915, 556.**Thaumatchthys** Smith & Radcliffe,
1912, 546.Family 634. **HIMANTOLOPHIDÆ****Himantolophus** Reinhardt, 1838, 193.**Oneiroides**⁵²⁸ Lütken, 1871, 362.**Corynolophus**⁵²⁹ Gill, 1878.**Ægæonichthys** Clarke, 1878, 394, 575.**Diceratias** Günther, 1887, 437.**Linophryne** Collett, 1886, 434.**Paroneiroides** Alcock, 1890, 449.**Dolopichthys** Garman, 1899, 486.⁵²⁸ Misprinted *Oneiroides* in "Genera of Fishes."⁵²⁹ *Proc. U. S. Nat. Mus.*, 219; type *Himantolophus reinhardti* Lütken. (Omitted in "Genera of Fishes.")Family 635. **MELANOCETIDÆ****Melanocetus** Günther, 1864, 333.**Lyocetus** Günther, 1887, 437.Family 636. **CAULOPHRYNIDÆ****Caulophryne** Goode & Bean, 1895, 468.Family 637. **ACERATIIDÆ****Aceratias** Brauer, 1902, 497.**Haplophryne** Regan, 1912, 545.Family 638. **GIGACTINIDÆ****Gigantactis** Brauer, 1902, 497.

INDEX A

GENERIC NAMES NOT INCLUDED IN "GENERA OF FISHES."

In each of the four parts of the work entitled "Genera of Fishes," is an index of the names included, namely: in Part 1, 1758 to 1833; in Part 2, 1833 to 1858; in Part 3, 1859 to 1880; in Part 4, 1881 to 1920. The present list supplements these, including names overlooked or published since 1920.

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¹*Anodontoglanis* Rendahl, "Fish, N. W. Australia." *Zool. Mus. Kristiania*, 1922, 168; orthotype *A. dahli* Rendahl.

²*Blavania* Hora, *Rec. Ind. Mus.*, 1920, 202; orthotype *B. annandalei* Hora.

³*Coius* Hamilton, "Genera of Fishes," 1822, 172.

⁴*Crystallogobius* (*Latrunculus*) and *Boreogobius* (*Latrunculus*, preoccupied), are minute, transparent, annual gobies. *Aphia*, with forked caudal fin, is an atherine, not a goby.

⁵*Enantiopus* Boulenger, *loc. cit.*, 1906; orthotype *E. melanogenys* Boul.

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⁶"Genera of Fishes," p. 570; the name *Hyostomus* in proof-sheets changed to *Hyomacrurus* in publication. *Hyomacrurus* has priority.

⁷*Mucropleurodus* Regan, "Cichlid Fishes of Lake Victoria," *Proc. Zool. Soc. Lond.*, 1922, 189; orthotype *Paratilapia bicolor* Boulenger.

⁸*Nomorhamphus* Weber & de Beaufort, "Indo-Austr. Fishes IV," 1922, 141; orthotype *N. celebensis* W. & de B.

⁹*Denks. Akad. Wien*, 1893, 83; orthotype *Auchenipterus hasemani* Steind.

¹⁰*Rhyacanthias* is apparently a synonym of *Symphysansdon*.

¹¹Sanzo, *Mem. Acad. Roma*, 1920; orthotype *S. loviae* Sanzo (larvæ of some Stomiid).

¹²*Tekla* Nichols, "Copeia," 1922, 69; orthotype *Cremnobates fasciatus* Steindachner.

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NOTE.—In the Report of the Fisheries and Marine Biological Survey of South Africa, received as these pages go through the press, are two important papers, the first on "The *Heterosomata* (Flat Fishes)" by Cecil von Bonde, the other "Deep Sea Fishes, Part I," by J. D. F. Gilchrist. The following new genera are proposed:

Cynoglossoides von Bonde, 1822, 23; orthotype *Cynoglossus attenuatus* Gilchrist (*Cynoglossidæ*).

Atractophorus Gilchrist, 48; orthotype *A. annectens* Gilchrist (*Squalidæ*).

Bathymacrops Gilchrist, 53; orthotype *B. macrolepis* G. (*Bathylagidæ*).

Pelecinomimus Gilchrist, 56; orthotype *P. picklei* G. (*Cetomimidæ*).

Lyconodes Gilchrist, 59; orthotype *L. argenteus* G. (*Macrouridæ*).

Neoscombrops Gilchrist, 67; orthotype *N. annectens* G. (*Scombropidæ*).

Parasphenanthias Gilchrist, 69; orthotype *P. weberi* G. (*Serranidæ*).

Xenolepidichthys Gilchrist, 73; orthotype *X. dalgleishi* G. (*Grammicolepidæ*).

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¹⁸In words of this type classical authority prefers the shorter form to the less euphonious *Arripididæ*, and the like. (Dr. H. R. Fairclough.)

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